THE BUILDER

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THIS WEEK'S NEWS

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THE International Architectural Students' Congress is to be held in London from December 30 to January 8, the theme of the Congress being "Unite and Rebuild for Peace." 180

THE Minister of Town and Country Planning (Mr. Lewis Silkin, M.P.) has abandoned the idea of a new town at Mobberley, Cheshire, owing to the danger of subsidence from salt deposits. 180

ST. MARYLEBONE BOROUGH COUNCIL invite the submission of designs for a memorial (including the ayout of the plot) to civilians killed by enemy action. 181

STRUCTURAL work in connection with aircraft and aero-engine development frequently provides interesting problems for the structural engineer and contractor. Propeller test beds recently completed for the De Havilland Aircraft Co., Ltd., at Hatfield, are illustrated and described. 188

THE first International Exhibition and Conference on Landscape Architecture opened at the County Hall, London, on August 9. A report of the proceedings at the first three sessions of the Conference, attended by delegates from 14 nations, is given on page 190

IN the fifth article of his new series on "Price Build-up To-day," "Cain" (V. C. Abell) gives the figures relating to carcase timber for roofs with hips and for valleys; aluminium eaves, gutter and fittings, and rainwater pipe and fittings; and L.C.C. pipe and fittings. 195

A REPORT on the training of general foremen has been approved by the executive council of the National Federation of Building Trades Employers, who have already started discussions with the Ministry of Education with a view to commencing courses this winter. A short-term course of training has been drawn up to meet the present urgent needs of the industry. A syllabus has been prepared under the following heads: Elementary mensuration and surveying; Revision of general building practice; Site planning and organisation; Site administration; and Personnel management and welfare. 199

THE CENTRAL LAND BOARD announce arrangements affecting private owners of plots of land bought at "building site" prices before the Town and Country Planning Bill was introduced in January, 1947. They will be entitled, if they start to build a house on the plot for their own occupation on or before January 7, 1952, to a payment from the £300,000,000 fund. Broadly, the payment from the fund covers the development charge. 200

IN a Parliamentary reply, Mr. C. W. Key, M.P., Minister of Works, has given details of the numbers and types of premises in the United Kingdom at present requisitioned by the Government. 201

TRADE UNIONISM AND PRODUCTION

THE main function of trade unions has always been the advancement of the standard of life of their members, particularly in the economic aspect of better wages and conditions. The building trade unions of this country can claim not only to have exercised this function with good sense and statesmanship (as witness the absence of strikes and lock-outs in the industry for well over twenty years), but also to have paid some regard to their wider responsibilities in such matters as technical development and in improving the efficiency of building operations.

As early as 1929 representatives of the National Federation of Building Trades Operatives were joining with representatives of other sections in a kind of informal working party known as the Building Industry Council of Review to consider how far it might be possible by concerted effort to improve the position of the building industry and trades associated with it, by increasing efficiency and reducing costs. Later, when the informal Council of Review grew into the more formal organisation known as the Building Industries National Council, there was co-operation by the unions with the other sections, not only on matters of broad economic policy affecting the prosperity of the industry but also on technical matters such as standardisation and codes of practice. All this work was on a very modest scale compared with that which has subsequently developed under the Ministry of Works, but it was significant pioneer work in which the official leaders of the building trade unions took their part.

These efforts occurred largely through the National Federation of Building Trades Operatives, which then, as now, comprised the majority of craft and labourers' unions connected with building. Some of the individual unions also took a part. The plasterers' and plumbers' unions had joint committees with the respective employers' interests to deal with apprenticeship and craft education. The plasterers' union even made a grant to the research work on plaster being carried out at the Building Research Station.

The war years saw a greatly increased participation of the trade unions in matters affecting production and technical development. On the production side there was the appointment of trade union nominees as site officers. In the technical field representatives of the unions joined in the work of the Codes of Practice Committee. A great national scheme was launched by the employers and operatives to deal with apprenticeship. All this was in addition to the full participation of the National Federation in the high level consultative committees appointed to advise successive Ministers of Works. Since the war there has been the setting up of the National Joint Production Council as a measure to secure higher output.

The exigencies of the post-war years, however, are proving as great as, if not greater than those of the war period. Every possible means of securing increased efficiency must be sought. Therefore, excellent as their record has been, the unions should be asking themselves what more they can do. In some ways that may be no easy task, for it may well require a fundamentally new approach to industrial problems. It is not altogether easy, for instance, for the leaders of the unions to show the rank and file that their future well-being lies not in increased money wages but in increased production leading to more goods and services, and so to an improvement in real wages.

Some practical suggestions may, however, be made. The unions might very well consider some remarks in the journal of the Amalgamated Engineering Union which were recently quoted in the *Manchester Guardian*:

> ". . . there are trade unions in America who regard it as part of their service to members to employ industrial consultants and efficiency experts on their staffs, as we employ solicitors, legal advisers, and (in some cases) research workers and publicists. . . . We have not gone so far in this country. Many unions have not even looked over this field of service. But it is probable that more trade union time, thought and money will have to be given to a widening of the conception of managerial functions from the trade union standpoint. We cannot continue to allow the hostility and inefficiency of managements bred in capitalist traditions to endanger our standards of living."

Here is obviously much food for thought by the unions. The suggestion that industrial consultants should be employed on the staffs of the unions goes very much further than the present arrangement by which some of the regional production officers employed by the National Joint Production Council are selected from trade union members. This particular suggestion may not be the best solution, and it might be difficult to find the right type of men for such appointments. It is, however, a suggestion that should be well considered.

The unions might also consider the question of their representation on the various technical committees in which they join. A glance at the membership lists contained in the Reports of the Ministry of Works Codes of Practice Committee shows that the unions' representatives are all members of the executive committee of the National Federation, that is to say, the top policy men who, in addition to their work for the Federation, have heavy responsibilities in connection with their own unions. It seems scarcely likely that these men, however well qualified, can have the time to give to this technical work the attention it deserves. Here the unions might do well to look further afield for their representatives, and even to get in touch with the excellent craft guilds and institutes associated with the building industry. These institutes contain men of considerable technical knowledge and experience, their members being chiefly craftsmen who by study and ability have fitted themselves for posts as supervisors and teachers. Perhaps it is this very fact that accounts for the apparent lack of any contact whatever between the unions and the institutes. If this be so, it does credit to neither. As the unions are immeasurably the larger and more influential bodies, the responsibility of making the first approach would seem to be on them.

These suggestions are only a few illustrations of the ways in which the trade unions could assist in increasing production and promoting technical development. There is no doubt that the unions can play a big part, perhaps a unique one, in endeavouring to secure that increase in industrial efficiency which is so urgent. May the unions not fail to take their opportunity.

NOTES AND NEWS

Earlham Hall.

WHAT is the perfect English country house? Mr. R. H. Mottram, the chronicler of East Anglia, put forward the case for Earlham Hall with scholarship and charm in his recent talk on the B.B.C. Like so many old houses, Earlham was recently in danger of being swallowed up in the development plans of the County Borough of Norwich, but although housing estates have sprung up almost on its boundaries, the house and grounds remain untouched and present a picture of rural charm rarely to be equalled in England. Credit is to be given to the Corporation of Norwich for having the foresight to purchase this house before it was bought and the grounds sold off in lots.

The appearance of Earlham as one approaches it from across the park is extraordinarily tranquil; the curved gables, the black Norfolk Flint walls and the beautifully proportioned white painted windows offer an impressive picture of repose. To the West, the ground falls away to the river Yare, beyond lies Earlham church, and, as Mr. Mottram says, "under these oaks round that Dovecot in the foreground used to play the seven beautiful daughters of John Gurney, watched over by their drawing master, a little old fellow in a brown coat called John Crome." Earlham was probably started about 1643. The great iron bolts on the gables are of this date. The great south garden front was probably added in Queen Anne's reign. Here the expression changes; the constant fear of war, which dictated so much the style of architecture in the earlier part of the house, had passed and the wide garden front shows a sense of sanity and peace.

Many architects will find themselves in agreement with Mr. Mottram. Earlham is a lovely place; it is, in its own sphere, probably superior to Knole or Blenheim, two mansions usually considered to represent the opposite poles of English country house tradition.

Architecture and Sport.

THE interesting designs submitted for the competition connected with the "XIV Olympiad" serve to remind us that architecture for sport has never been very impressive in this country. There are very few stadiums that could be described as attractive. They are very often the work of engineers, and although their construction and functional qualities may be excellent they would gain much if the advice of architects had been sought. Swimming baths follow the same pattern. Many of the late Victorian council type are still in use to-day, and while they were models of good construction in their time their general expression is purely "borough engineer." The L.C.C. are doing good work in designing modern baths, but many other Councils lag far behind. The "Olympiad" designs for buildings connected with sport are examples of what may be done when beauty of form is allied to functional needs. Many Continental countries have shown the way. We should do our best to develop this particular facet of architecture ourselves.

Evidence Invited.

THE Committee on the Qualifications of Planners, whose chairman is Sir George Schuster, invites written evidence from any person or body with an interest in the subject of planning. The committee's terms of reference are "to take account of the present and prospective scope of town and country planning, and to consider and report what qualifications are necessary or desirable for persons engaged in it, and to make any recommendations affecting those persons which appear to the committee to be relevant." Memoranda of evidence from Scotland, as well as from England and Wales, will be received by Mr. H. R. Pollitzer, the secretary of the committee, at the Ministry of Town and Country Planning, 32, St. James's-square, S.W.1.

COMING EVENT

Wednesday, August 18.

THE MARS GROUP AND INSTITUTE OF CONTEMPORARY ARTS.—"The Relationship of Painting, Sculpture and Architecture," by Professor S. Giedion. School of Hygiene and Tropical Medicine, Keppel-st., W.C.1. 6 p.m.

International Students' Congress.

THE International Architectural Students' Congress is to be held in London from December 30 to January 8. The central theme of the congress will be "Unite and Rebuild for Peace," and an exhibition of students' work is being arranged, with representative drawings from British schools and each of the foreign delegations. The congress will be held at the R.I.B.A., 66, Portland-place, W.1.

Mobberley New Town Abandoned.

THE Minister of Town and Country Planning has abandoned the possibility of a new town at Mobberley, Cheshire, owing to the danger of subsidence from salt deposits. Of the alternative areas the Minister is favourably impressed with the possibility of development at Congleton, and hopes soon to be able to make a proposal to the authorities. A further site is in the Crowton area.

Valuers' President.

AT the invitation of the council of management of the Valuers' Institution, Mr. Aubrey A. G. Toone, A.R.I.B.A., F.V.I., of Manchester (vice-president since 1944 and a member of the council since 1942), has accepted the office of president of the institution for 1948-49.

Italy's Housing Plan.

A GOVERNMENT Bill to relieve Italy's unemployment by a large-scale housing programme has been passed by the Chamber of Deputies by 248 votes to 55. The programme, known as the Fanfani plan, aims at providing 300,000 houses in the next seven years.

Royal Academy Attendance.

A TOTAL of 242,296 people visited the Royal Academy summer exhibition, which ended on August 7. For a total of £27,396, 624 works were sold.

Transvaal Mission Visits Kent Schools.

A PURCHASING COMMISSION from the Transvaal has just completed a visit to this country, during which Mr. D. G. Harries, Assistant Provincial Secretary, and Mr. P. Pauw, Chief Inspector of Schools, inspected existing schools, schools in course of erection, and schemes for the completion of the education programme for Kent Education Committee, under the direction of Mr. Sidney H. Loweth, F.S.A., F.R.I.B.A., Kent County Architect. Various schools erected in Bristol were also inspected.

County Surveyor Retires.

MR. W. J. MERRETT, county surveyor of Durham C.C., is to retire at the end of this month after 50 years in local government service, including 28 years at Durham. His successor, Mr. W. H. B. Cotton, who begins his duties on September 1, is the deputy county surveyor of Nottinghamshire.

An Architect's Estate.

MR. WILLIAM CHARLES INMAN, of West Chiltington Common, Sussex, architect and surveyor, left £48,052.

Change of Address.

SIR IAN AND LADY MACALISTER have removed to 28, The Pryors, East Heath-road, Hampstead, N.W.3.

Cornwall County Architect Appointed.

MR. SYDNEY GREGSON, F.R.I.B.A., at present county architect in the Isle of Wight, has been appointed Cornwall county architect. He has held his appointment in the Isle of Wight for 11 years and will take up his new position in November. He is 45.

Appointment.

THE Minister of Town and Country Planning, Mr. Lewis Silkin, M.P., has appointed Mr. P. Elton Longmore, C.B.E., to be a member of the Welwyn Garden City and Hatfield Development Corporation, which was set up in June of this year.

Until recently Mr. Longmore was clerk to the Hertfordshire County Council.

Professional Announcements.

The practice of MR. NIALL MONTGOMERY, architect, is transferred to 27, Merrion-square, Dublin. The telephone number remains unchanged: Dublin 62072.

MR. CHARLES W. HOW, A.R.I.C.S., F.I.Arb., chartered surveyor and valuer, has gone into practice at "Faraday House," High-street, Rye, Sussex. He would be glad to receive catalogues or trade brochures.

COMPETITION NEWS

Memorial to Civilian War Dead.

THE St. Marylebone Borough Council invite architects to submit designs in open competition for a memorial (including the layout of the plot), to civilians killed by enemy action, to be erected in the St. Marylebone Cemetery, East End-road, East Finchley. Twenty guineas will be paid to the author of the design selected by the Council. Further particulars from the Town Clerk, Town Hall, St. Marylebone, W.1.

Trade Union Congress Competition.

By arrangement with the Trade Union Congress the three premiated designs in the memorial building competition are now on exhibition at the Building Centre, 9, Conduit-street, W., until August 27 (10 a.m. to 5 p.m., Saturdays 10 a.m. to 1 p.m.).

FROM "THE BUILDER" OF 1848

Saturday, August 12, 1848.

STATE OF THE BOROUGH SEWERS.—We have received a copy of the report of the Surveyors of the Metropolitan Commission of Sewers, upon an inspection of sewers in the Surrey and Kent divisions, which, if all be true, shows a fearful state of things in that densely populated district. In many places the "high levels" are mere open ditches running at the backs of the houses, the walls of which frequently form the sides of the ditch; while, not more than 7 to 12 feet above, bedroom windows not only open right over the foul deposits, but themselves afford a common route of egress for the offal and refuse which are in constant course of being pitched into the "high levels." These, in other places, are actually covered by the cracked and open flooring of the rooms, through which the committee had no difficulty in espying the inmates from below. . . . We wish to think that the surveyors have over-coloured their statement.

From the International Exhibition of Landscape Architecture.

STOKE POGES MEMORIAL: Part of the Colonnade. (*See page* 190.) **Designed by Edward White, P.P.I.L.A., and L. Milner White, F.I.L.A.**

INN SIGNS

THE contemporary revival of interest in pictorial signboards for inns began about 1917, when, under the direction of Mr. Harry Redfern, F.R.I.B.A., architect to the Government-controlled "Carlisle Undertaking," many excellent new public-houses were built. Each had a well-designed signboard as part of its essential equipment. Between the wars the movement spread to various parts of the country, and in 1933 the Brewers' Society offered to the Royal Society of Arts a prize for a full-sized design for a painted inn sign in the Society's annual competition of industrial designs. There were 64 entries and many excellent designs were submitted. But it was not until 1936, when the memorable Inn Signs Exhibition, the first of its kind for 174 years, was held at the Building Centre, under the chairmanship of the late Sir Guy Dawber, R.A., that the richness of our possessions in this form of art and the new opportunities for its development became widely appreciated. There were 429 exhibits, of which about 300 were actual signs lent for the occasion. The war set back the movement, as it did almost everything else, but a sign of renewed interest is the publication of a book on the subject, under the title of "Inn-Signia," by Messrs. Whitbread and Co., Ltd. (price 5s. net).

The book is a history of the inn sign, well and entertainingly written and copiously illustrated. Signboards go back, apparently, at least two thousand years, excavations among the ruins of Pompeii and Herculanæum having brought to light tradesmen's signs of various kinds, of stone and terra-cotta, and also painted. The sign of a goat, it is recorded, typified a dairy; two slaves carrying a wine skin marked the door of a wine merchant; a cupid with a shoe in either hand attracted customers to the shoemaker's shop. Sometimes the tools of a man's trade were displayed—a chisel and adze for the carpenter, ears of corn and a millstone for the baker. For centuries after, when few people could read and fewer write, easily-understood signs were necessary to denote trades—hence the barber-surgeon's coloured pole, the cutler's knife, the tailor's shears. The streets of London and other cities were crowded with signboards up to the middle of the eighteenth century, but to-day, although there are some interesting survivals like the bankers' signs of Lombard-street, the three golden balls of the pawnbroker, the mortar and pestle of the chemist, and an occasional barber's pole, signs are fast dying out. A notable exception is the sign of the public-house, inn or tavern, which, indeed, shows a healthy vitality.

The Roman sign for a tavern was generally a bush, since a clump of ivy and vine leaves was symbolical of Bacchus, the God of Wine. This clump of greenery, or a garland of evergreens, was fixed to the top of a projecting pole known as the "ale-stake." The name survives to-day in the "Bull and Bush." Another early sign for a public-house was a red lattice. A survival of this was to be found, according to the author of the book mentioned, in Holborn within the last century, though corrupted to "The Green Lettuce"!

In a chapter on "The Wells of Inspiration," the author traces the origin of the inn, as we know it, to religious establishments and the hostels attached to the castles of the nobility, and gives an interesting account of the names which thus became associated with them, like "The Angel" of the Knights Templars, and "The Salutation," which derives from the Annunciation, and was given to hostels belonging to religious orders dedicated to the Virgin Mary. Names, indeed, are a special study in themselves; they are a digest of social and political history. Kings and queens are first-class favourites, with famous soldiers and sailors as good runners-up. Animals, birds, flowers, trees, agricultural implements and produce, sports and games, books, battles, occupations, vehicles, articles of clothing, domestic utensils, persons, family names, the heavenly bodies—it seems that almost everything one can think of has been used as the name of an inn, and commemorated in a sign, at one time or another. Some names are thought to be corruptions. It is claimed, for example, that "The Bull and Mouth" was originally "The Boulogne Mouth"; "The Bag o' Nails" "The Bacchanals"; "The Frighted Horse" "The Freighted Horse"; "The Iron Devil" "The Hirondelle"; "The Andrew Mac" "The Andromache"; "The Pig and Whistle" "The Peg o' Wassail"; "The Goat and Compasses" The "God Encompasseth Us"—and so forth, though some of this may be guesswork and the signs mean exactly what they say. Articulateness may not be the invariable characteristic of the inn, but the fun and fancy which are may well be responsible for the whimsicality of many names.

THE WHITE HART, WITLEY, SURREY.
Oil painting on panel. Repainted by Birket Foster and Alfred Cooper, c. 1875.

Though there is rightly some repetition of historical names in connection with so historic an institution as the inn, nomenclature is by no means static. The 1914-18 war produced an "Earl Haig," an "Earl Beatty." a "Marshal Foch." a "General Joffre," "The Heroes of Jutland," and "The Dawn Patrol." There is even a "Belisha Beacon," a "Silver Bullett" and "The G.I." The late Basil Oliver, in his admirable book on "The Renaissance of the English Public House," records, among modern names, "The Trusty Tractor," "The Car and Starter," "The Plug and Throttle," "The Don Bradman" and "The Pudsey Wonder."

Every suitable material appears to have been used at one time or another for signs—stone, wood, iron, copper,

steel, glass, canvas and faience. By this time there must almost certainly be some in plastics. The favourite position for a sign has generally been on the building itself or attached to it by means of a bracket, though the isolated post, some distance from the house, has had many adherents for the sake of the quicker recognition so obtained. Many signs are notable for their admirable decorative ironwork. The beam type of sign, spanning the road, was popular at one time, but modern transport, with its high and uncertain loading, has made it obsolete, though a few examples are still found in country districts. The most remarkable sign of this type was probably that of "The White Hart," at Scole, which has long since disappeared. Erected in 1655, it had a heavy cross beam and supports which were literally crowded with allegorical images and figures of classical mythology in carved oak.

In the past, sign painting was often combined with the trade of coach painting, but many distinguished artists are either known or believed to have painted inn signs. The sign of a house in Oxford-street, formerly named "The Man with a Load of Mischief," almost certainly by Hogarth, still exists in private hands. John Crome is said to have done "The Top Sawyer" and "The Wherryman," at Norwich; David Cox "The Royal Oak" at Bettws-y-Coed; Richard Wilson the "We Three Loggerheads" in North Wales; George Morland "The British Tar," at Plymouth. Birket Foster and Alfred Cooper repainted the delightful sign of "The White Hart," at Witley. Marcus Stone, Walter Crane, Millais and Henry Moon, R.A., are other artists who turned their hand to inn-sign painting. In more recent times many well-known artists have done signs, including Michael Dignam, Kruger Gray, Ralph Ellis, E. M. Dinkel, Violet Rutter, K. M. Claxton and Harvey James. An original sign is that of "The Comet," at Hatfield, an enriched stone column surmounted by a model of the Comet aeroplane intertwined with a celestial comet, carved by Eric Kennington for the inn designed by E. B. Musman, F.R.I.B.A.

THE FALSTAFF, CANTERBURY. Sign designed by Ralph Ellis (1937).

Though it is difficult to lay down rules for painted signs, it is clear that the easel picture type of work is not suitable. Broad, conventionalised work of good, strong colour appears to be most effective. Also the lettering must be bold and clear and of graceful type. The question of permanence of oil-painted signs inevitably arises. In his book, to which reference has already been made, Basil Oliver writes: "This is sometimes partially met by framing and glazing, but even this form of attempted preservation has its disadvantages. One of these is the intensification of heat through glass—at least on the sunny side of projecting signs—with a resultant tendency to discoloration and cracking of the paint. Certain precautions are essential owing to extreme variations of weather and temperature. The most important of these is ventilation and the drainage of condensation, at the lowest point. It is no easy matter to dispose of this moisture and at the same time to keep the frame watertight, dustproof and insect-proof."

Copper, steel plate, wood panel and canvas have all been used as a base. Sheet copper appears to be the most serviceable material, since it is more durable than canvas and will neither decay nor rust. G. J. H.

THE WHITE HART, SCOLE, NORFOLK. Engraving by C. J. Richardson (1825).

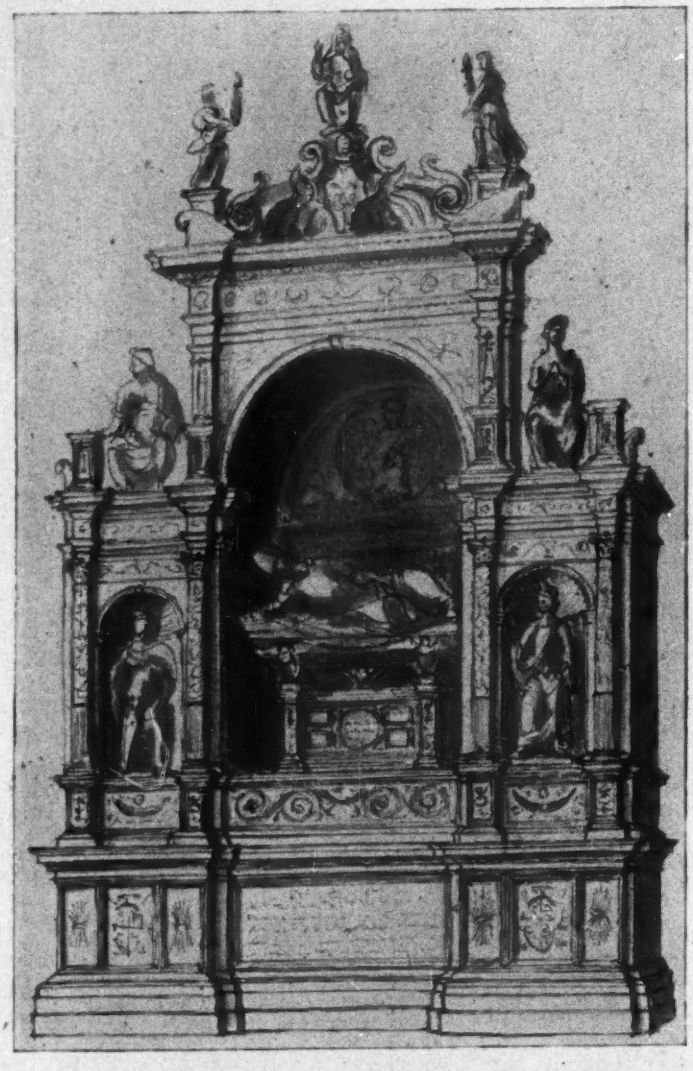
OBITUARY

George John Skipper, F.R.I.B.A.

We regret to record the death in his 94th year of Mr. George John Skipper, F.R.I.B.A., M.T.P.I., of Norwich. At one time he was architect and surveyor to East Dereham U.D.C., Blofield R.D.C., Aylsham R.D.C., and seven other councils. His earlier work included the Shepton Mallet hospital, Somerset; Norwich Union Life Insurance Society Head Office; Royal Norfolk and Suffolk Yacht Club-house, Lowestoft; and Cromer and Hunstanton town halls. He designed a scheme for the rebuilding of Sackville-street, Piccadilly, one building of which he completed, and also built cottages at Sandringham for King George V.

Leonard Gray Ekins, F.R.I.B.A.

We regret to record the death on July 28 of Mr. Leonard Gray Ekins, F.R.I.B.A., aged 70. Mr. Ekins was 37 years with the Co-operative Wholesale Society. After being chief architect of the Newcastle branch from 1905, he took the same position in the London department from 1916 until 1942, when he retired. He was a member of the Board of Architectural Education to the Registration Council and a member of the Stepney Reconstruction Group, Toynbee Hall. Among works carried out for the Society under his direction were the flour mills and grain silos Royal Victoria Docks, London, and administrative offices and furnishing showrooms at Prescot-street, London, E.1.

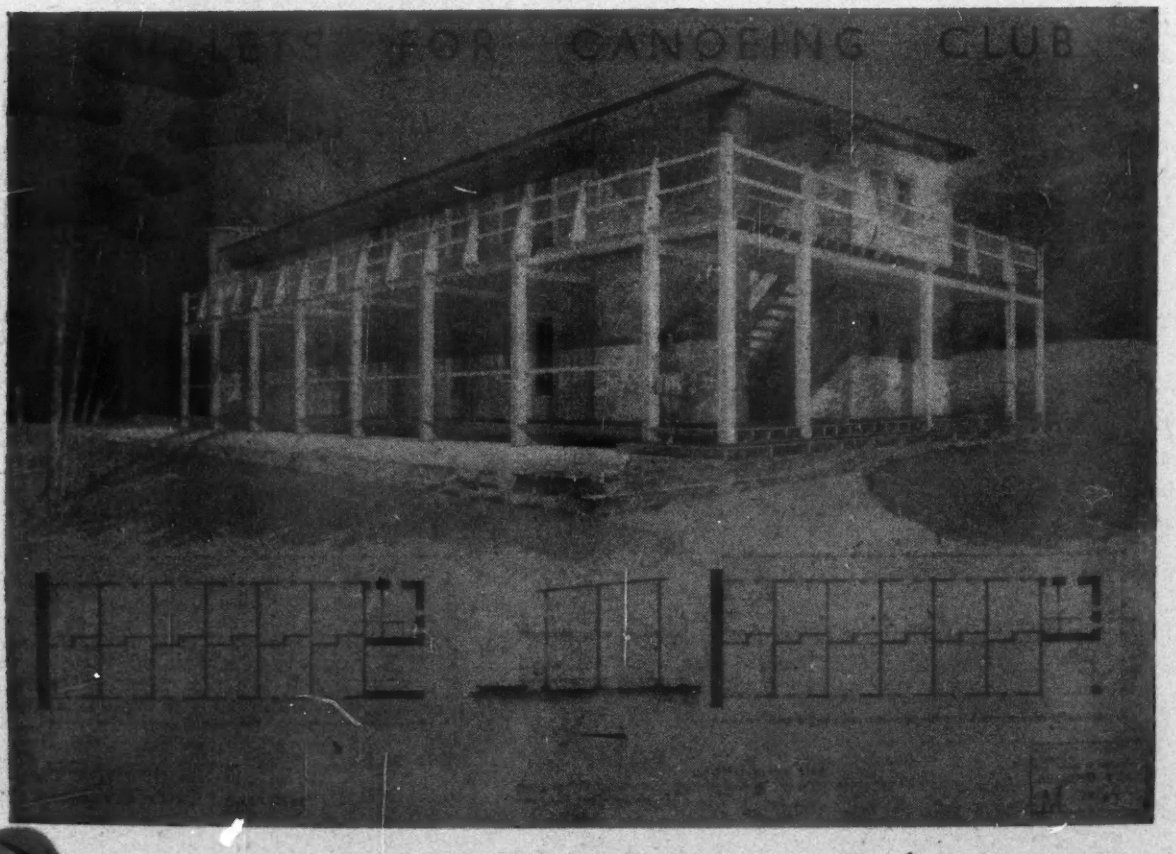


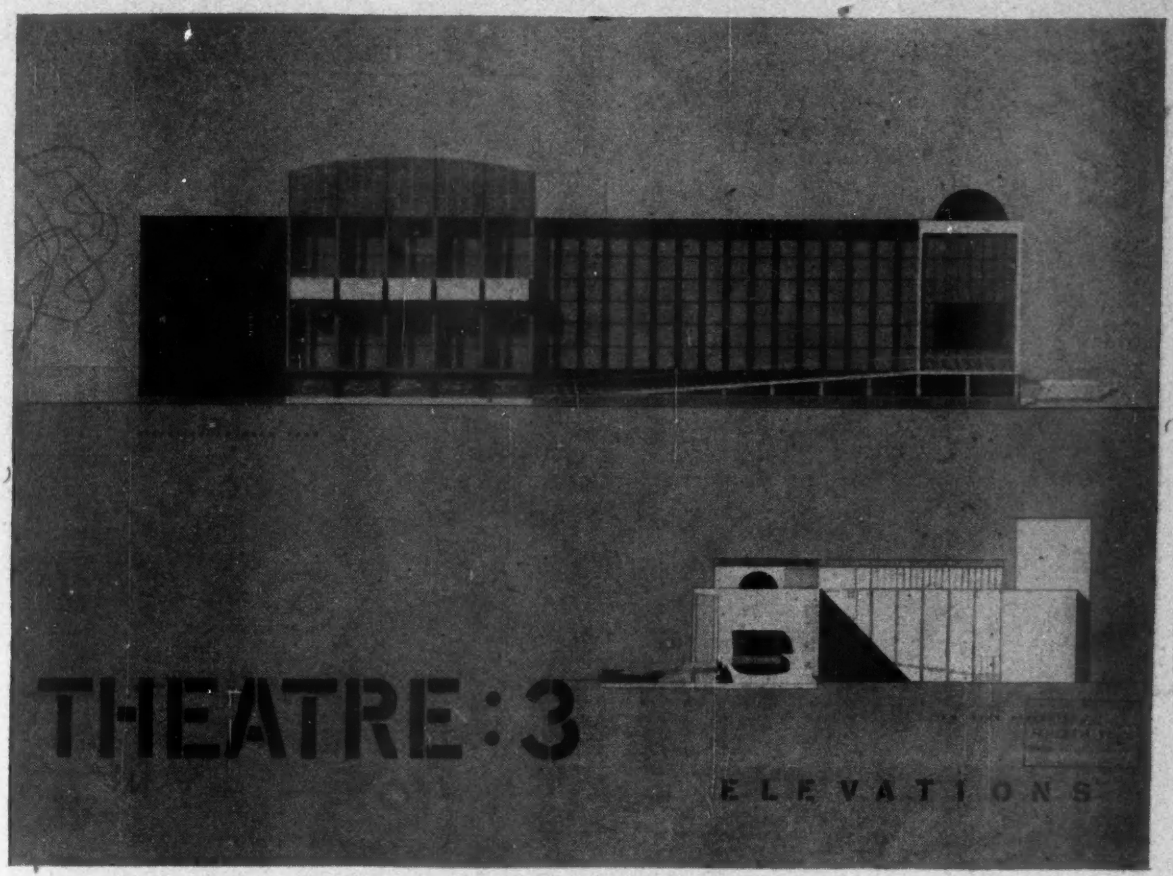
STUDENTS' DESIGNS AT THE NORTHERN POLYTECHNIC

ONE OF THE PRINCIPAL FEATURES OF the recent exhibition of students' work at the Northern Polytechnic was the research subject set the Third Year students, "A Century of Progress." In the main corridor of the school there were displayed more than a hundred sheets of economic and æsthetic interest, presenting an impressive picture of a century of evolution. The studies, from the First to the Thesis Year, provided some well-executed work, the general quality emphasising the advantages of a thorough basic training.

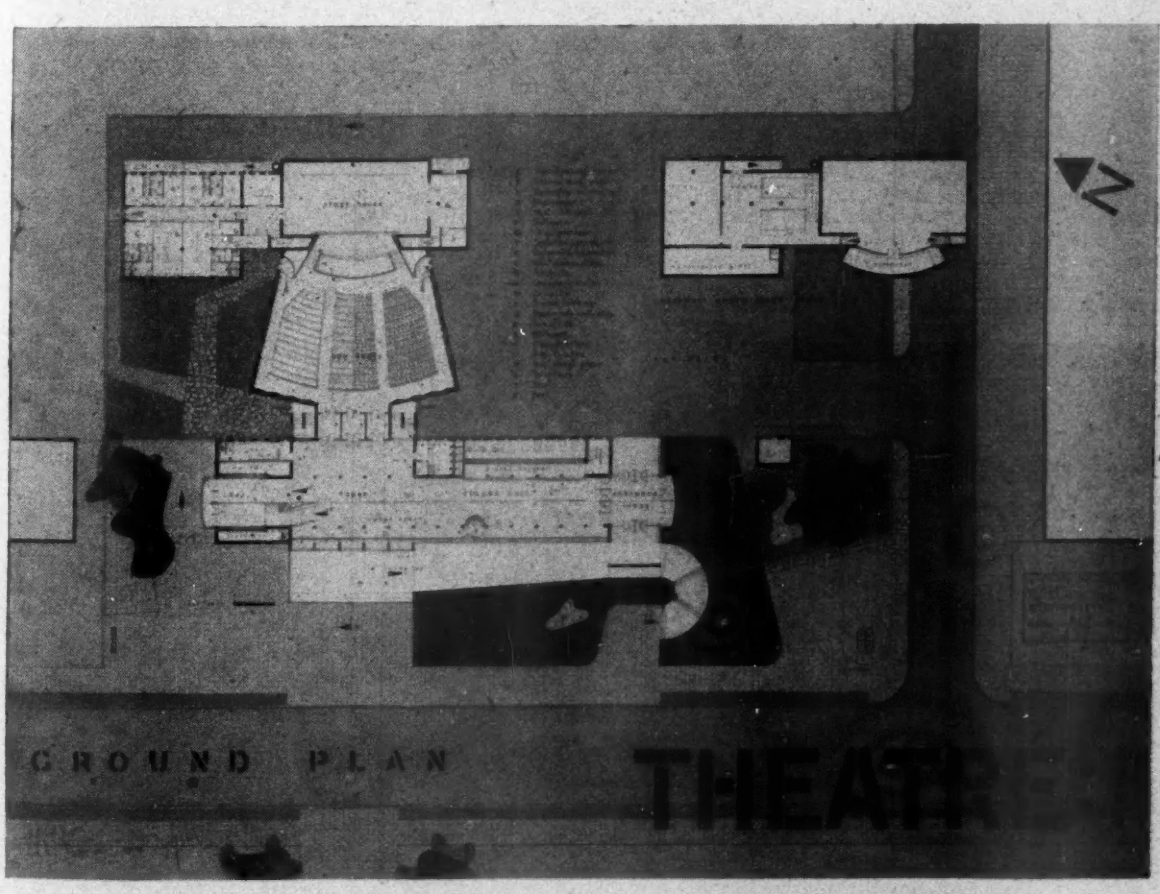
Left: **Museum Study, by D. C. Gibbons (First Year).**

Below: **Chalets for a Canoeing Club, by R. Kain (Second Year).**



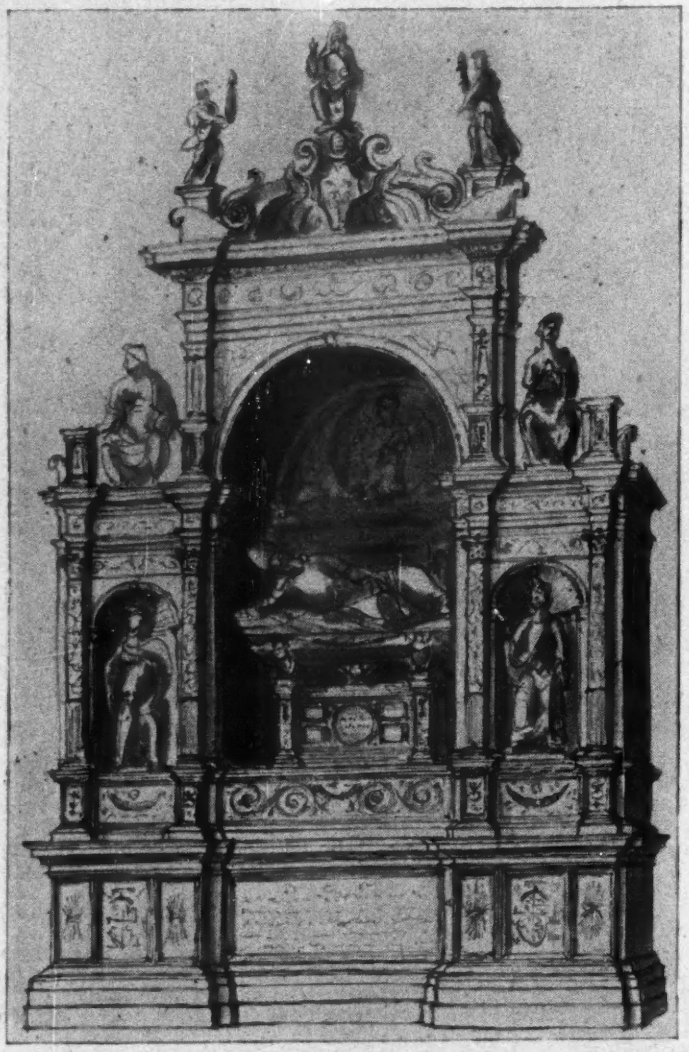


The Elevations. *Below:* **The Ground-floor Plan.**



A Theatre, by T. A. Keenan (Fourth Year).

STUDENTS' DESIGNS AT THE NORTHERN POLYTECHNIC



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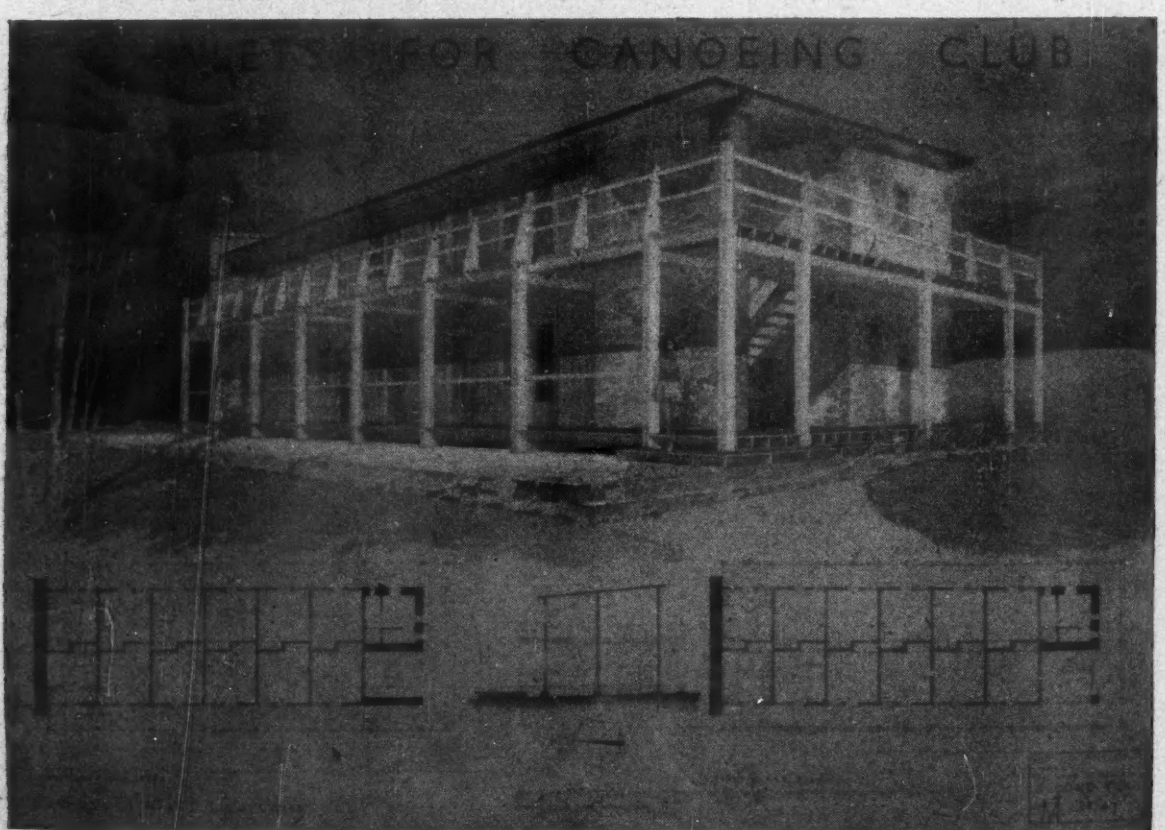
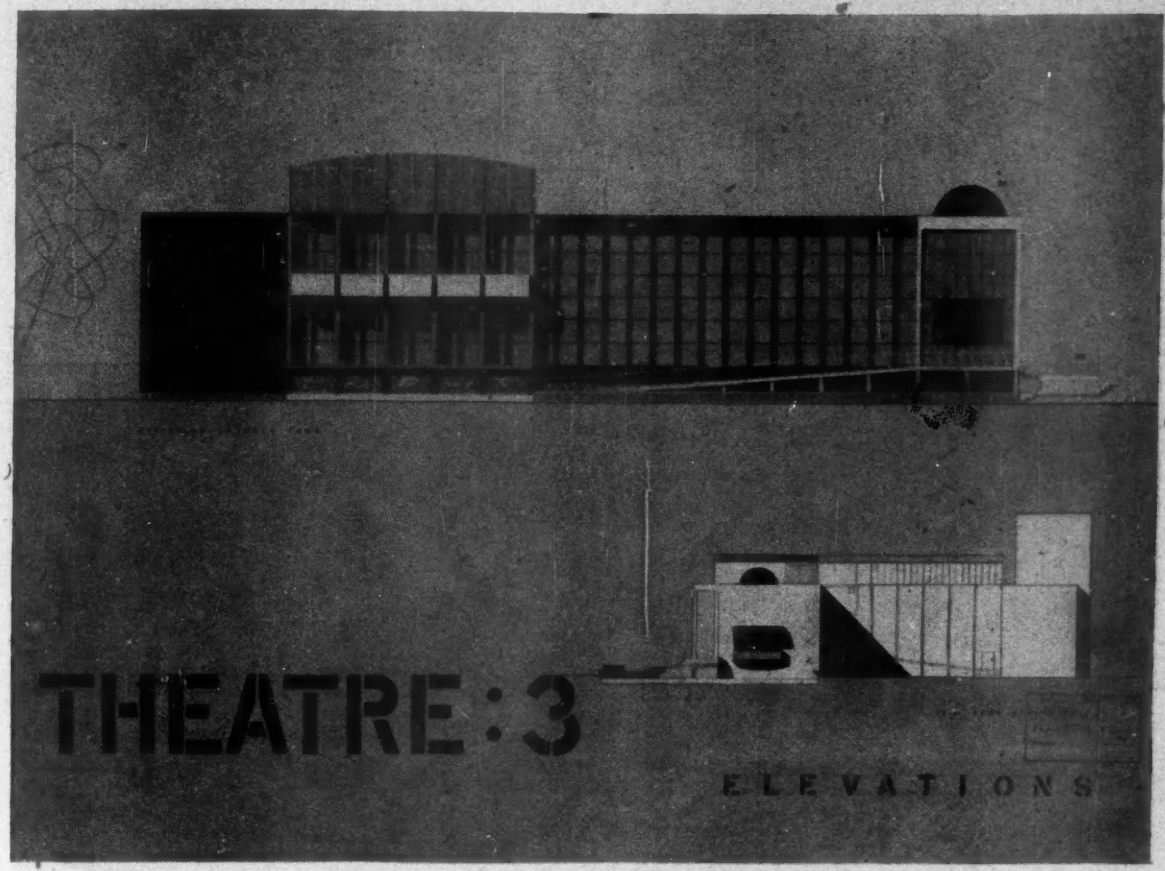
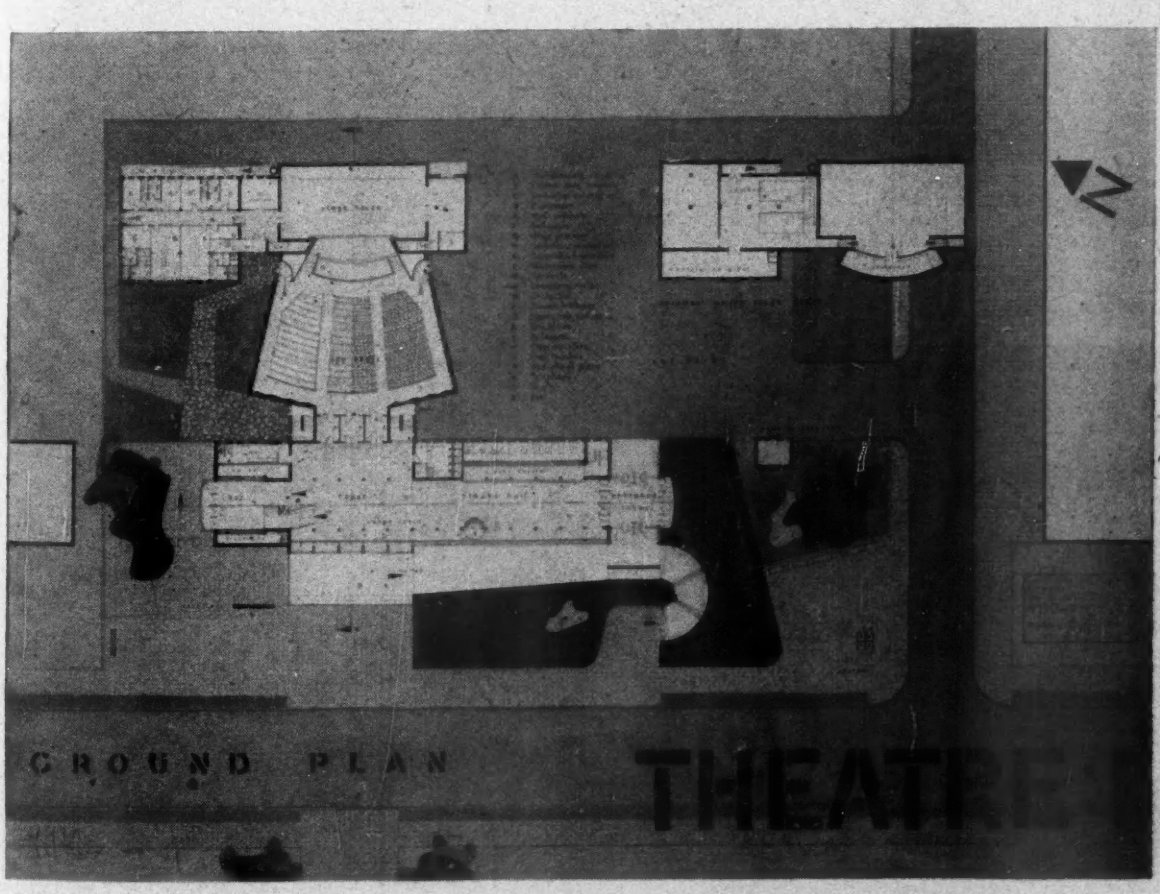




The Elevations. *Below:* **The Ground-floor Plan.**



A Theatre, by T. A. Keenan (Fourth Year).

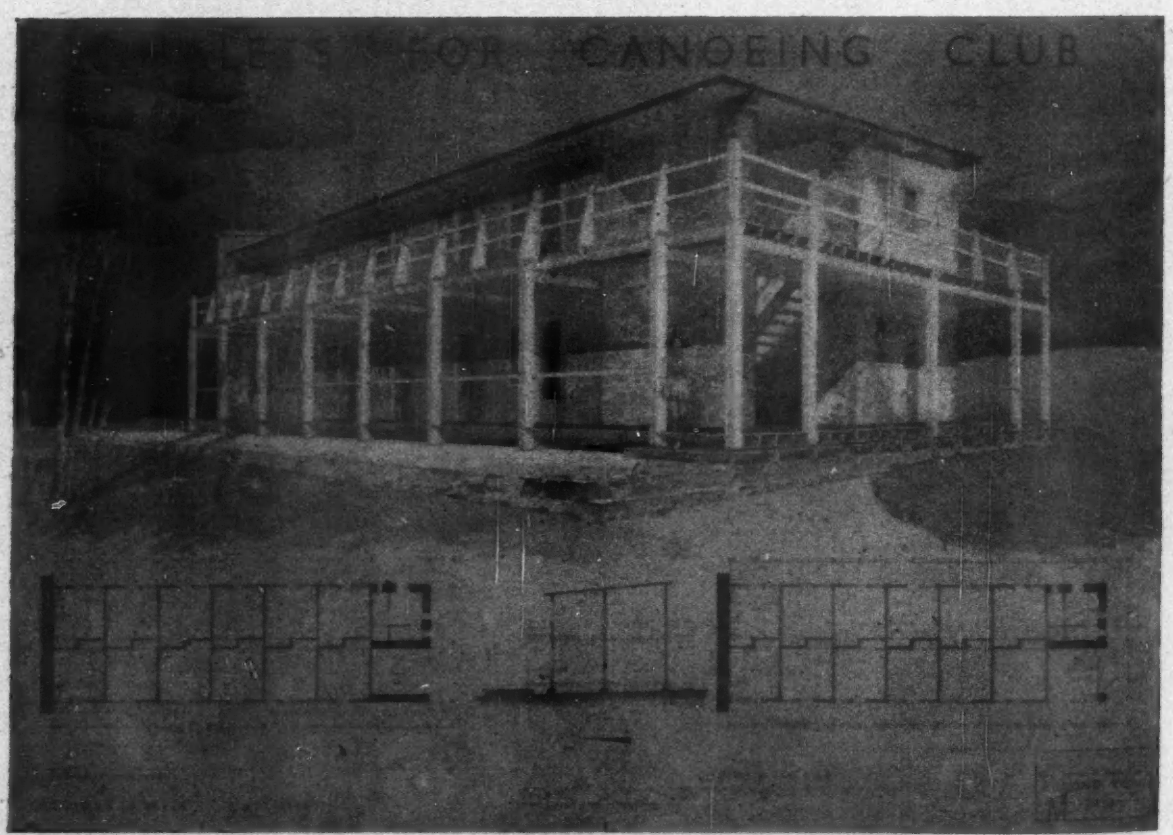
STUDENTS' DESIGNS AT THE NORTHERN POLYTECHNIC

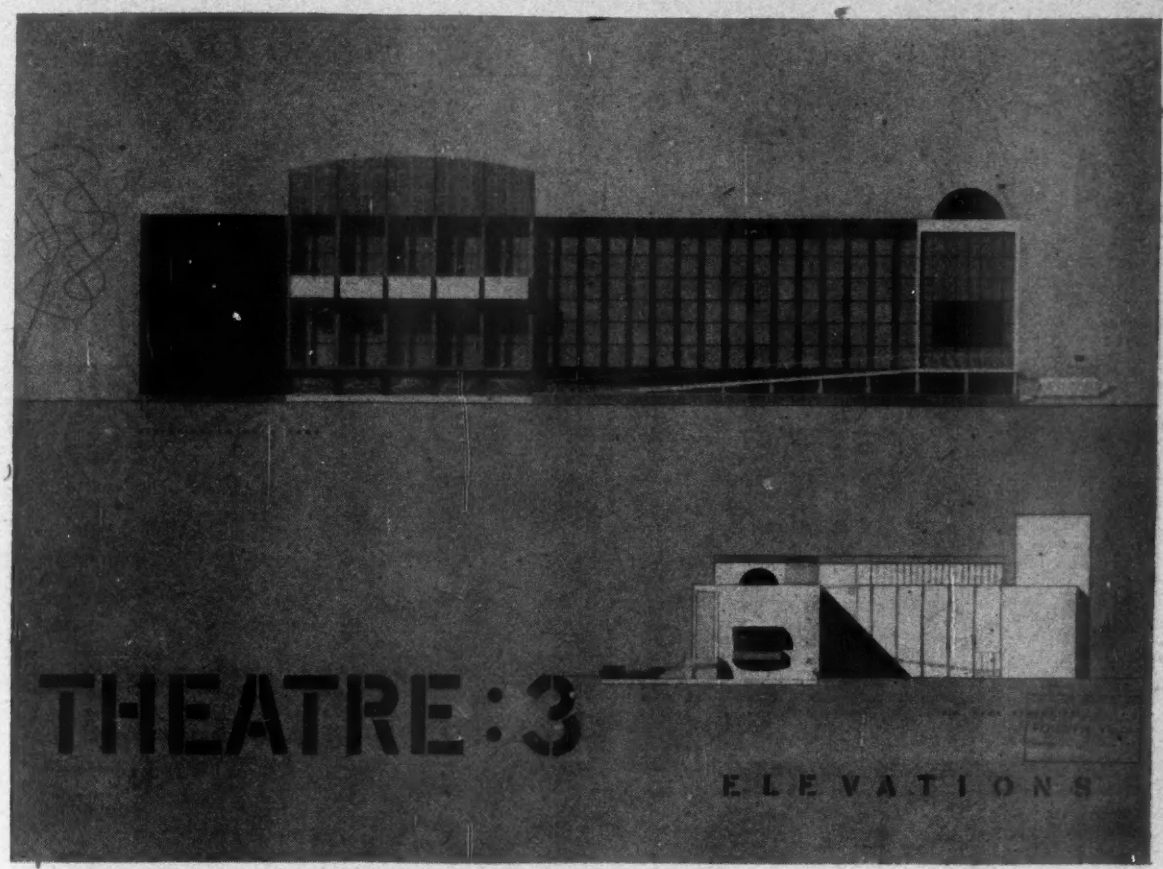
STUDENTS' DESIGNS AT THE NORTHERN POLYTECHNIC

ONE OF THE PRINCIPAL FEATURES OF the recent exhibition of students' work at the Northern Polytechnic was the research subject set the Third Year students, "A Century of Progress." In the main corridor of the school there were displayed more than a hundred sheets of economic and æsthetic interest, presenting an impressive picture of a century of evolution. The studies, from the First to the Thesis Year, provided some well-executed work, the general quality emphasising the advantages of a thorough basic training.

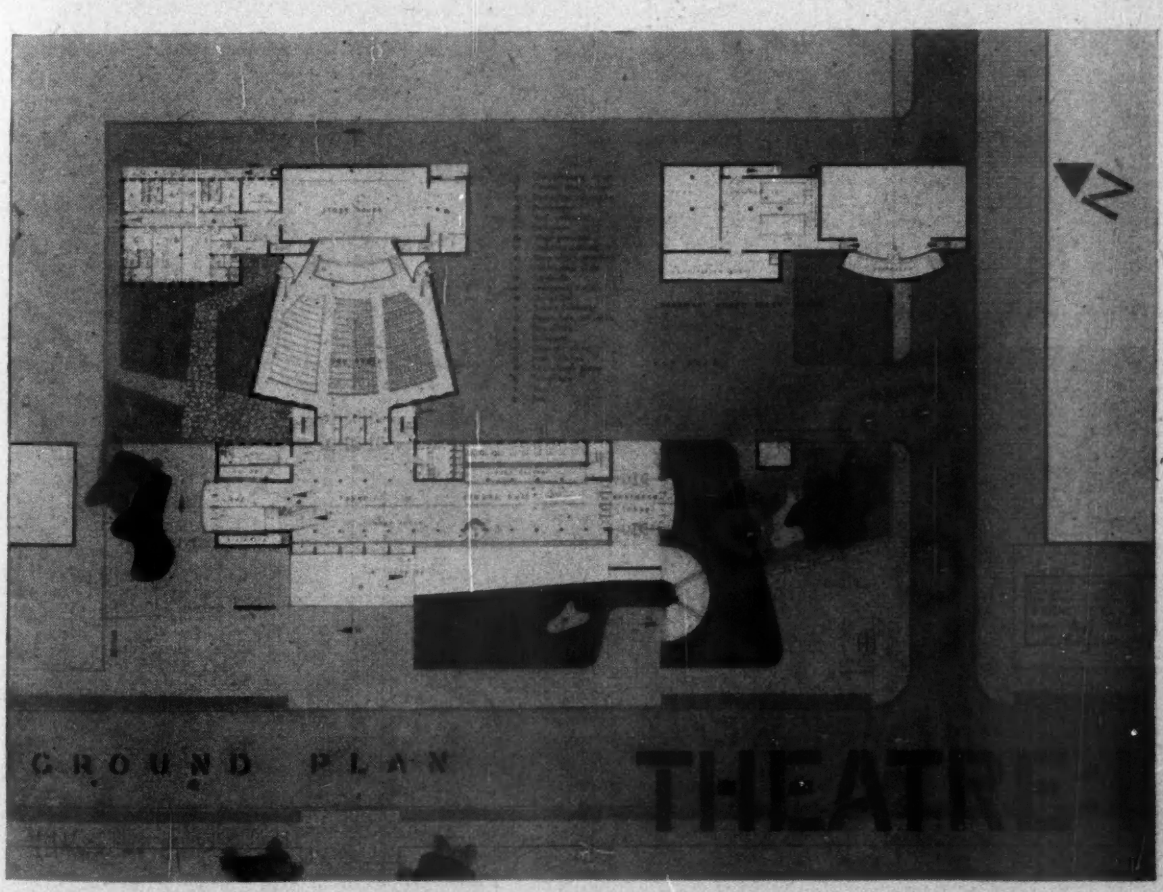
Left: **Museum Study, by D. C. Gibbons (First Year).**

Below: **Chalets for a Canoeing Club, by R. Kain (Second Year).**



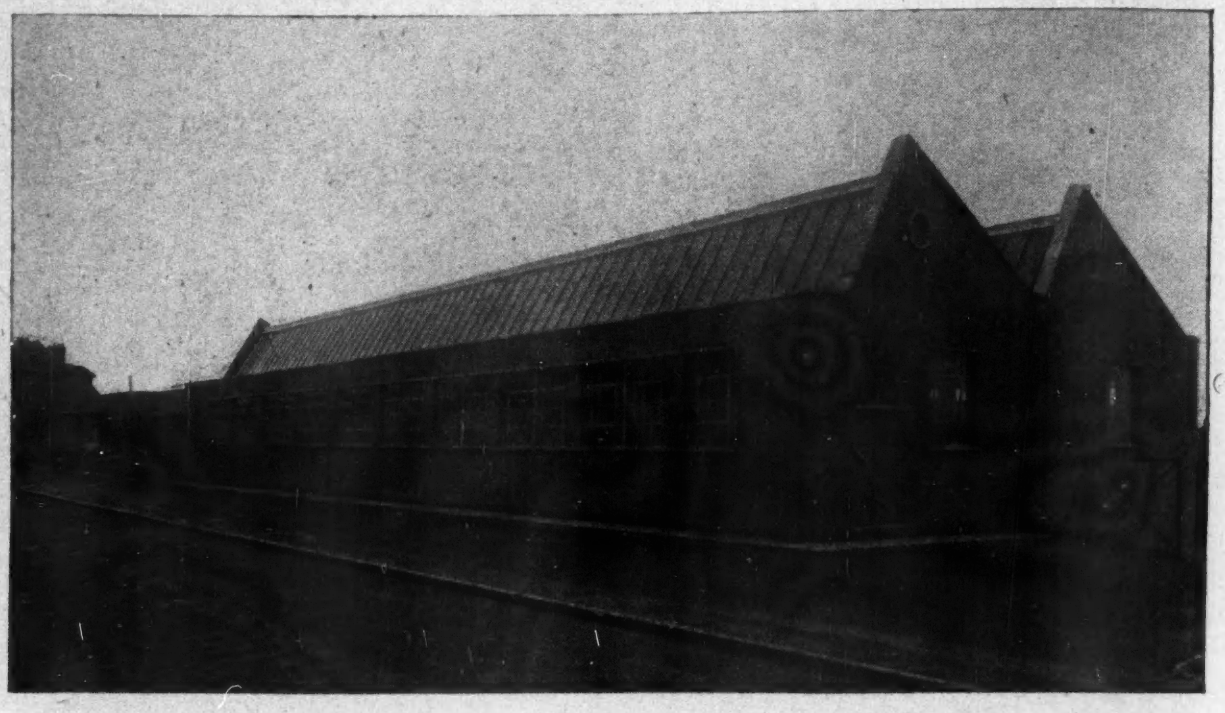


The Elevations. *Below:* **The Ground-floor Plan.**



A Theatre, by T. A. Keenan (Fourth Year).

STUDENTS' DESIGNS AT THE NORTHERN POLYTECHNIC



LEATHER GOODS FACTORY, SOUTHAMPTON

W. H. SAUNDERS AND SON, L.R.I.B.A., Architects

THE SITE OF THIS FACTORY IS NEAR THE centre of the town and situated between two roads, there being a difference in level of about 15 ft. between the roads.

The clients' requirements were that the factory should be planned on one floor and should be capable of employing not less than 200 workpeople and that all possible amenities should be provided for employees. By virtue of the awkward shape of the site, coupled with its steep gradient, the building has been planned using almost the whole of the principal and the higher road, leaving the narrowing portion of the site for vehicle entrance, car park, etc. Owing to the site and nature of the ground, the Canteen and Boiler House Blocks, together with site for future warehouse, are planned at lower ground-floor level.

Foundations and stanchion bases had to be carried down to a considerable depth, as it was found that the safe bearing load would have to be calculated on the basis of ½ ton per foot super.

The whole of the building, with the exception of the Canteen Block, at lower ground-floor level, is steel framed.

The floors of the ground floor, also the roofs over the Administrative Block, etc., and the Canteen Block, are reinforced concrete hollow tile construction. The floor of the Canteen Block is mass concrete.

Detail of Main Entrance.

The flat roofing is three-layer built-up bitumen roofing, while the roof over the Works area is of Northlight steel construction, covered in corrugated asbestos sheeting and patent glazing; the gutters are of reinforced concrete.

External walls generally are of 11 in. cavity construction and partition walls are of brick or partition blocks. Internal doors generally are standard flush type with small observation panels.

Entrance doors to Factory and Administrative Section, together with the internal screens and doors to the vestibules, are of softwood and glazed, in accordance with the architects' design.

Walls in the Administrative Section are plastered and flat painted; elsewhere walls are fair-faced brickwork, distempered. Ceilings are plastered and distempered. Partitioning to Warehouse, Stores, and in certain cases, in the Office wing, is of steel. The Factory area floor is hardwood block, with composition floor in the Administrative wing and at Factory entrances, etc. The Canteen has a Granwood floor and that of the Women's Rest Room is rubber.

The elevational treatment generally is of rustic fletton facing bricks with rubbed joints and with pre-cast concrete dressings. Standard metal industrial sashes have been used in the Factory section of the building and also in the Canteen Block; elsewhere, purpose-made metal windows have been used.

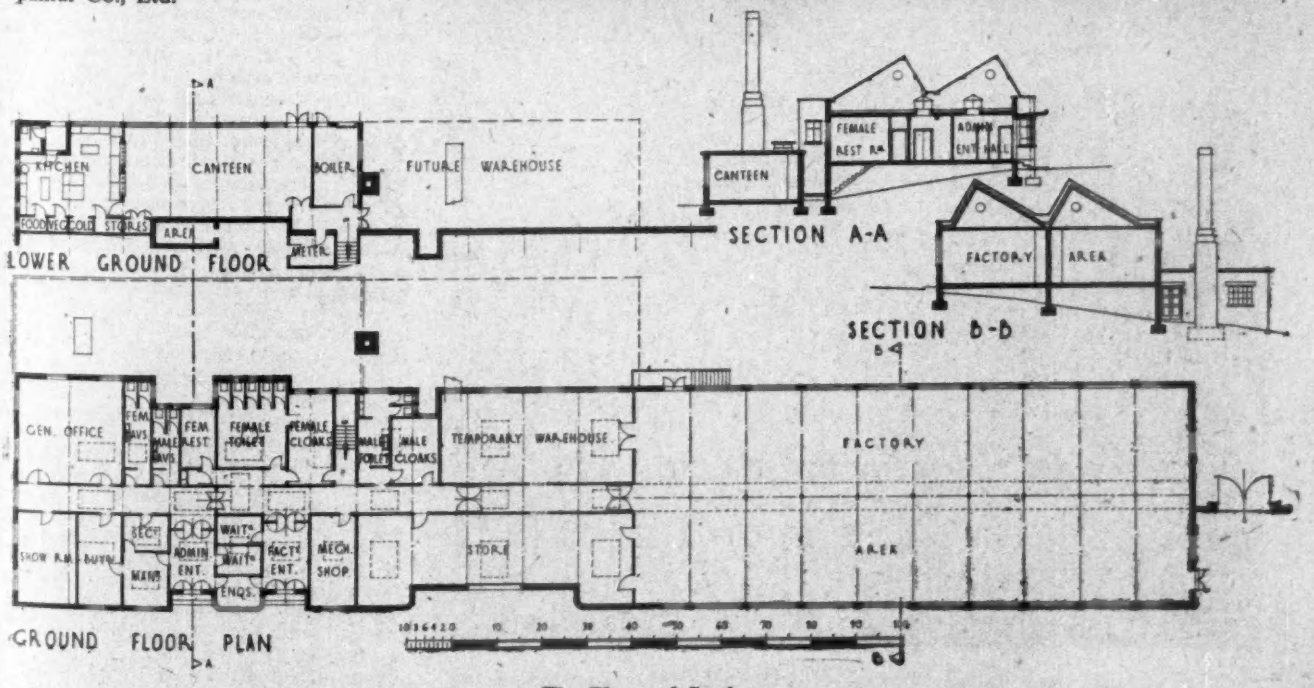
The whole building is heated by low pressure hot water system, the boiler being gas-fired. The Factory area is heated by a combination of radiators and suspended unit heaters. Water heating in the Kitchen and Cloakrooms is by independent gas-fired water heaters. Time control and internal broadcasting systems are installed and fluorescent lighting has been adopted in the Works area.

The decorative treatment is as follows: *Factory area, including Warehouse, Mechanics Shop, etc.*: ceilings, off white distemper; walls, cream distemper; steelwork, partitions, roller shutters, etc., in four shades of pastel grey; windows and doors, pastel green; radiators, etc., aluminium. *The Offices, Entrance, Vestibules, Corridors, etc.*, have been decorated in various combinations of cream, pastel grey and pastel green, with radiators, etc., in bronze; the composition floors are in marigold. *Kitchen and Canteen* have been decorated in various tones of cream, with ivory windows, rich brown doors and deep red architraves, etc., with radiators, etc., in bronze. Various colour schemes, similar to the above, have been used in the other departments.

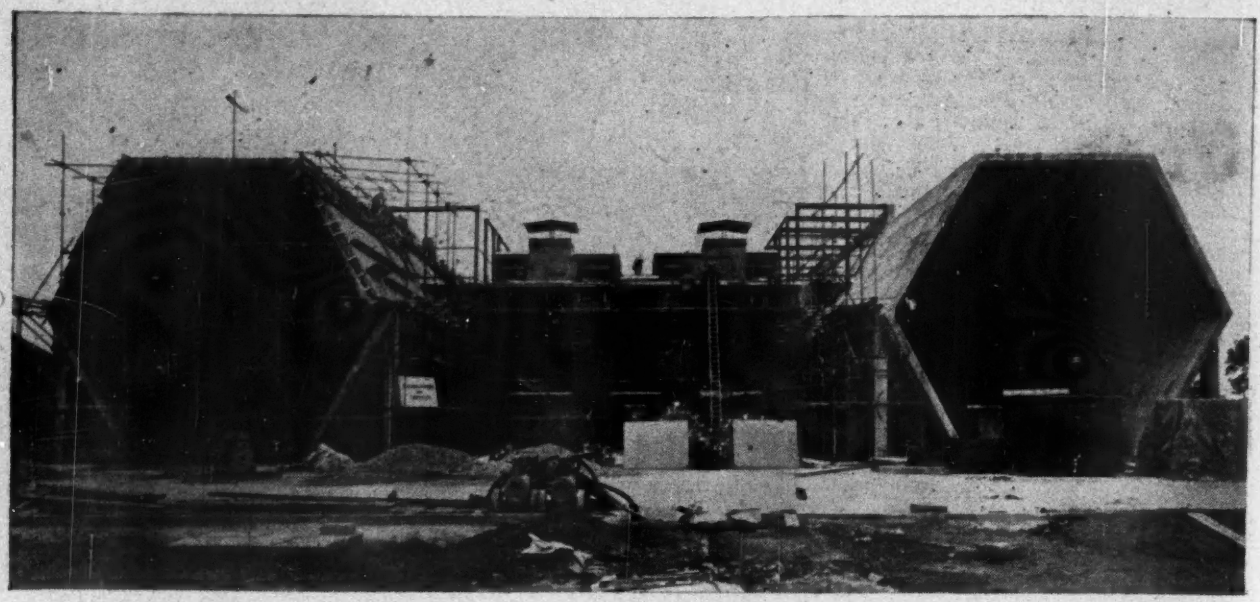
The colour scheme externally has been light cream for windows, lantern lights, door frames; fawn for rainwater goods and secondary doors; french blue-grey on roller shutters and main entrance doors, and emergency staircase in aluminium.

The general contractors were Rice & Son, Ltd. The principal sub-contractors were: Structural steelwork, Redpath Brown & Co., Ltd.; reinforced concrete construction, Frazzi, Ltd.; metal windows, lantern lights, patent glazing, metal partitions, The Crittall Manufacturing Co., Ltd.; flat roofing, William Briggs & Co, Ltd.; asbestos roofing, Turners Asbestos Cement Co., Ltd.; pre-cast concrete work, The Blokcrete Co., Ltd.; wood block floors, Hollis Bros.; composition floors, Leatherflor Ltd. and Granwood Flooring, Ltd.; rubber flooring, Gabriel, Wade & English, Ltd.; plastering and granolithic floors, W. A. Telling (South Western) & Co., Ltd.; bricks and partition blocks, Marston Valley Brick Co., Ltd., and W. T. Lamb & Co., Ltd.; joinery, Golding and Ansell Ltd.; gas installation, Southampton Gas, Light and Coke Co.; electrical installation, R. J. Bullivant & Son; heating and hot water installation, Adams and Adams; steel roller shuttering, fencing and sanitary fittings, William Dibben & Sons Ltd.; paint materials, Cellon Ltd., Pinchin Johnson & Co., Ltd.; distemper, Walpamur Co., Ltd.

The Canteen. *Below:* **The Factory Interior.**



The Plan and Sections.

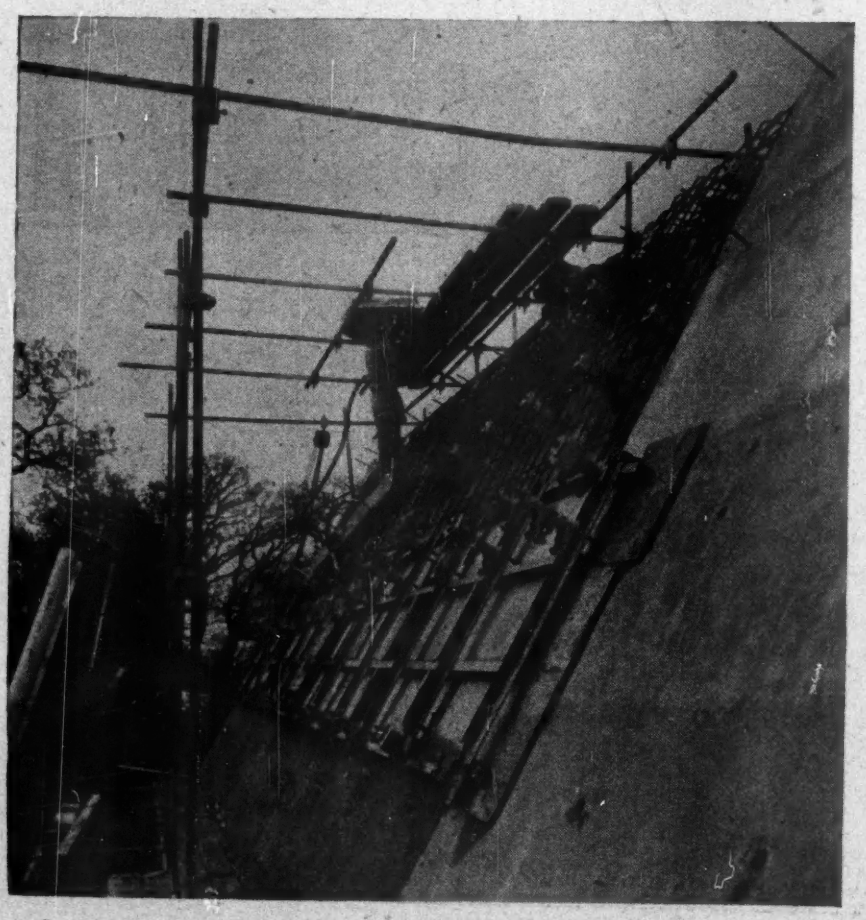


Test Beds and Framed Workshop Buildings under construction.

PROPELLER TEST BEDS, HATFIELD

DEVELOPMENTS in aircraft and their engines present the structural engineer and the contractor with interesting problems owing to the unusual structures called for to provide accommodation for aircraft, special components, testing, etc. A structure of this nature has recently been completed for De Havilland Aircraft Company, Ltd., at Hatfield. Known as propeller test beds, the structure comprises a centre workshop with two tunnels, the latter being of reinforced concrete hexagonal construction, each being some 200 ft. long and 30 ft. wide. The centre structure is a steel-framed building providing space for workshops, control equipment, etc.

The plan of the structure is approximately that of the letter "H," the two legs of the letter being the reinforced concrete tunnels and the connecting piece being the centre block of workshops. The whole forms a complex and intricate assembly of plant equipment and recording instruments, etc., and, owing to the special nature of the equipment, exceptional accuracy of workmanship in the reinforced concrete was called for. The tolerance allowed in all internal dimensions was limited to plus or minus $\frac{1}{4}$ in. An interesting example which tends to illustrate this feature was the positioning and fixing of some 5,600 fixing bolts. The whole of the plant requiring these fixings was made and drilled off the site, and therefore both concrete and plant had to be to the same degree of accuracy. At the time of fixing the internal linings and plant only six bolts were found to be out of position.



Outer superstructure walling, showing external shuttering, reinforcement and spacer blocks.

The foundations of the structure comprised isolated bases taken down to a depth of 6 ft., the columns to the tunnels being positioned on the outer edges; columns then were interconnected with transverse beams below the floor level. The whole of the structure at this level, *i.e.*, beams and slab, was cast on a sand bed 6 in. thick. This material was subsequently removed by water jets immediately prior to striking the shuttering to the upper portion of the superstructure and this ensured that loads were only transmitted to the ground at isolated bases. Construction of foundations and columns followed normal procedure, and the profile for the bottom section of the outward sloping walls was cast monolithic with the floor slab.

The superstructure was constructed in two main operations, *i.e.*, up to mid-height "knuckle" level, the upper walls and roof then being carried out in one operation. Work proceeded on both tunnels concurrently and was so planned to obtain continuity for the various operations. The shuttering required for this unusual structure called for special consideration, both to obtain the necessary degree of accuracy and to ensure the very high quality finish required.

Centering to the sloping walls up to the knuckle level consisted of purpose-made light steel angle frames with plywood panels attached. The nature of the ground and the structural accuracy required necessitated these frames being supported on R.S.J.s spanning longitudinally on the transverse r.c. beams.

Special extension frames were incorporated at the upper edges to enable a short length of the inward sloping upper wall to be cast at the same time, forming a "kicker" or anchor for securing the shuttering to the upper portion of superstructure. Centering to the upper portion was carried on mobile tubular scaffolding towers within the tunnels, and comprised timber runners with plywood panels. Provision was incorporated in these towers for variations in thickness of walls, etc., without dismantling the scaffold and shutters.

Shuttering to internal face of lower walls and external face of upper walls was in the form of light panels 5 ft. high supported off the main centering by precast concrete spacer blocks and held in by bolts. These blocks served the combined purposes of spacer blocks and to form the required holes for subsequent fixings.

Superstructure work on each tunnel was commenced at the centre working outwards towards each end concurrently, thus obtaining a high degree of efficiency from a minimum amount of shuttering material. No. 2 mixers were used for concreting, one at each end, the concrete being transported by means of bucket skips on jubilee track trolleys along the floor of the tunnel and hoisted to working level by means of a Neal's crane. Concreting was carried out in 4 ft. 6 in. lifts and the concrete thoroughly compacted and consolidated by means of immersion vibrators. The care taken in the design and construction of the shuttering and in the control of concrete mixing and placing provided excellent surfaces which required the minimum of after treatment.

The main structure was of 1 : 2 : 4 mix, the average cube results of some 276 tests taken being 4,220 lb. at 28 days.

The architects for this work were Messrs. James M. Monro and Son, B.Sc., A.R.I.B.A., and the consulting engineer for the reinforced concrete work Mr. H. Iorys Hughes, M.Eng., M.I.C.E., M.I.Struct.E. The contractors for the reinforced concrete work and the general work to the structures were Messrs. Holland & Hannen and Cubitts, Ltd.

PROPELLER TEST BEDS, HATFIELD. Mobile towers supporting internal shuttering for upper construction.

CORRESPONDENCE

[Whilst we are glad to publish letters on professional and other matters of interest to our readers, it must be understood that we do not necessarily endorse the remarks of correspondents, who will oblige us if they will express their views as briefly as possible.]

Airey Houses and Fire Risks.

TO THE EDITOR OF *The Builder*.

SIR,—You will probably remember that in 1947 regional conferences were called in different part of the country by the Ministry of Health with the object of getting local authorities to indent for and build Airey houses in preference to traditional houses. I attended a conference in Gloucester, in October last, when local authorities were told by the Ministry that it was extremely doubtful whether they would receive any further allocations of permanent houses during the year 1947, but that Airey houses were available. It was also stated that these could be erected very much quicker than permanent houses and should not take many weeks. I challenged this statement at the meeting, but was assured that I was wrong.

Some local authorities in our district took these Airey houses about 12 months ago, but up to the present time very few have been completed ready for occupation; in fact, I think I am right in saying that traditional houses can be completed as quick, or quicker, than Airey houses.

It has now apparently been discovered that these houses are not fireproof, and the Ministry have given instructions that in the houses that have already been completed the inflammable insulating foil and fibre board linings should be removed and substituted by other material. I think this is one of the worst examples of Government planning we have yet had, and I suggest this should be called attention to in your valuable paper. The Minister has so far refused to say what the all-in costs of these houses are, but it is rumoured in our district that the final costs, including land, etc., are likely to be in the neighbourhood of £1,700 or £1,800.

I am informed that the Minister is proposing to allow £75 per house extra when the inflammable linings have to be removed.

W. J. RENDELL.

Devizes.

*** The Parliamentary question and answer on this subject is on page 201.

Builders' Foremen and Working Party.

TO THE EDITOR OF *The Builder*.

SIR,—From Mr. Rigden's letter it would seem that the poor general foreman has again been ignored, but then, so have so many others. There are many branches of building and civil engineering which can lay claim to representation on the Working Party, but, as we all know, the larger the committee the smaller the result.

I would suggest that all interested bodies, whether of foremen, merchants, employers, manufacturers, etc., collectively consider their own part in the industry, their strengths and their weaknesses, their problems and their difficulties, and embody these in a comprehensive report to be submitted to the Working Party for its consideration.

I would also like to see us follow the lead given by Sweden by setting up an Institute for Foremanship Training. Competent foremen can do more than most to reduce costs, increase output, and prevent labour troubles.

F. H. GREGORY,
London, N.19. General Foreman.

*** Mr. Gregory will note with interest, no doubt, the N.F.B.T.E. Report printed on page 199 of this issue.—ED.

Standardisation of Locks, etc.

TO THE EDITOR OF *The Builder*.

SIR,—I am wondering if, through the medium of your newspaper, I could inquire as to whether there is a desire for the publication of an Information Sheet covering the handling of locks, floor springs and the description of furniture, etc.

There still appears to be a certain amount of confusion in the industry with regard to this matter and I feel such a sheet, which, perhaps, might get the backing of the R.I.B.A. and the R.I.C.S. could be used as a standard throughout the industry and would meet a long-felt want.

W. H. TYRRELL.
Hammersmith, W.6.

Asbestos Sheeting and W.D. Claims.

TO THE EDITOR OF *The Builder*.

SIR,—I would refer your correspondent Mr. T. W. Brown (*The Builder*, July 30) to a letter in the *Estates Gazette* for August 4, 1945, from the Deputy Secretary, War Damage Commission, in which the following paragraph occurs: "Where inferior materials have had to be used these will be replaced for you later."

I raised the question of reinstatement as formerly in the *Estates Gazette* for May 1, 1943, and in the *Property Owners' Journal* for June, 1943.

SYDNEY NAYLOR.
The Manor,
Davies-street, W.1.

BOOKS RECEIVED

DESIGN IN CIVIL ARCHITECTURE. By A. E. Richardson and H. O. Corfiato. (London: English Universities Press, Ltd.) Price 32s. 6d.

MATHEMATICS II. By W. Morgan and J. R. Pickering. (London: Sir Isaac Pitman and Sons, Ltd.) Price 6s. 6d.

THE WORK OF THE BRIDGE BUILDERS. By J. Gordon Pierson. (London: Pen-in-Hand.) Price 7s. 6d.

LANDSCAPE ARCHITECTURE

International Exhibition and Conference

THE first International Exhibition and Conference on Landscape Architecture to be held in this country, organised by the Institute of Landscape Architects, was opened on August 9 at the County Hall, London, by the Duke of Wellington, Lord Lieutenant of the County.

The Exhibition, which is designed to interest the public as well as the professional man, gives some indication of the scope and complexity of the problems the landscape architect is called upon to solve. Apart from the introductory screens illustrating the historical development of landscape in many countries, the exhibition is divided into sections, each of which shows what is being done in the respective countries taking part in the Conference.

Discussion at the Conference, which began on August 10 and continued on the two succeeding days, was preceded by various papers on landscape architecture and related subjects.

Following is a summary of the proceedings of Tuesday and of Wednesday morning's sessions :—

EVOLUTION OF THE LANDSCAPE

The future prospects of landscapes and gardens in France were forecast by M. FERDINAND DUPRAT, Chairman of the French Society of Landscape Architecture, when he read a paper on "Evolution of the Landscape" at the first session of the Conference on August 10.

After describing, at some length, the situation in regard to parks and gardens in France from 1920 until the present day, M. Duprat continued : If we try to foresee the future of gardens and landscapes, taking individual and collective psychology into account, we arrive at the following data :—

The young contemporary French may be grouped into two spiritual families. On the one hand, a generous but embittered mass turning towards a collectivist ideology, the model of which is provided by the East of Europe ; on the other, a mass which, by reaction, education and affinity, claims the old individualist spirit of our people and rejects any intervention of collectivity in its own life.

To these two tendencies there correspond two types of gardens which will no doubt both subsist. In the first place, the little individual gardens in which man finds himself in the presence of nature, where he takes recreation, where he escapes from social constraint and torment, where, in a word, he ceases to be a registration number and becomes a man. In the second place, the green collective spaces, which will probably go on developing and which will be proper to the practice of public life.

Certainly the former will no longer be the vast, orderly gardens *a la Francaise* of the XVIIth century, nor the romantic parks of the XVIIIth, nor the large, landscape compositions of the XIXth, which resulted from aristocratic tastes ; but more simply, small enclosures of family origin or of an origin based on economy. The composition of these small gardens appears to have to be very simple and very rational. The Frenchman is above all a farmer ; he must have a kitchen-garden. And so the little enclosure will firstly comprise the kitchen-garden in which there will grow expertly arranged vegetables. After that, judging from present-day efforts, fruit plantations will occupy a large area. In the last resort, an ornamental garden, a "pleasure garden" as our ancestors of the Renaissance would say.

I presume this future ornamental garden to be related to the quite rarely regular Anglo-Saxon and Nordic gardens. The fashion seems to be developing towards pseudo-natural scenes, with a pool of water for water plants, ferns and borders of perennials which give less trouble and are easy to look after, while pavements and Japanese paths are replacing gravelled walks and terraces. Composition, where it exists, is asymmetrical, this more supple form admitting of a maximum exploitation of the small surfaces. In short, every means is being sought to reduce the costs of maintenance.

Building architecture will certainly maintain its influence on external decoration Modern buildings with bare surfaces and monotonous facades will be tempered by the varied silhouettes of plants whose natural beauty is unchangeable.

It might be that large estates are halting their disappearance or, at any rate, are modifying their function, for economically they cannot be brought back to life. Certainly, some will subsist as historical monuments : Versailles, Champs Vaux-le-Vicomte, Chantilly, Rambouillet, Villandry, but many will be and shall have to be transformed and adapted to their new functions. Purchased by public authorities, syndicates, co-operatives, social services of all kinds, they will become preventoria, sanatoria, popular holiday homes, retirement homes, schools, hotels, and research stations. It is believed that the best to be hoped for, with a view to preserving them with a maximum of character and beauty, would be to transform them in an intelligent manner so as to adapt them to the new requirements which they will have to meet, without thereby degrading them.

Collective Green Spaces.

It appears to us that the problem put to landscape architects, in the years to come, will be the very immense question of collective green spaces, a very important part of town planning, which will need to be given careful consideration, if we wish to prevent our reconstruction from being anarchical and our towns from being uninhabitable.

It is therefore a question of the safeguarding of natural wealth, to which are related the development of touring and the improvement of rural districts. Touring is taking a more and more important place in our customs. Holidays with pay encourage a mass exodus covering seven or eight months of the year, if one takes into account — as one must — the Winter Sports. In a parallel way the means of transport are developing. It is really a question of the servicing of the country. And in this connection a national board and county committees have just been created in France for the protection of sites and landscapes.

Of first importance is the protection of existing green preserves, and then their care. This latter work will be able to be undertaken within the framework of large works of a general interest, such as the creation of electricity-producing dams, the construction of motor roads, the organisation of the sea front, the development of air ports, etc. The American example of the maintenance of the valley of Tennessee or of the Alaska Road is there to encourage public authorities to unite economically the useful and the pleasant.

Lastly, within the agglomerations themselves, a general policy accepted and encouraged by the central authority should assist the maintenance of numerous green spaces, special public gardens : nursery gardens, play-fields, zoological and botanical gardens, sports fields and gardens of repose giving to all of the grades of the population, children, young people and adults, the satisfaction to which they are entitled. Recent studies and achievements, particularly in Paris, show that the proposal is feasible.

It will therefore be appropriate to attribute great importance to the distribution of verdure in towns. The trees of the avenues, giving beauty and repose to the eyes, compensate partly for the rare occurrence of large isolated parks among the masses of mournful black buildings.

Don't let us ever forget that the trees, the lawns and the flowers are indispensable to our physical health ; that the æsthetic quality of the milieu in which individuals live contributes to their good upbringing and, in consequence, to their happiness. To this end, the plans of future towns should be not to put gardens in the town, but rather to put the town in a garden.

MAN-MADE LANDSCAPES

Following is a summary of the remarks made on the same subject by Mr. THOMAS SHARP, M.A., M.T.P.I., F.I.L.A. :—

Every civilised landscape is largely man-made. Civilised man everywhere must alter and adapt the natural landscape to suit his mode of life. His very existence depends on it. Man would never have emerged from barbarism had he not become an "improver" of the natural scene in which his life was set.

The appearance of any cultural landscape is determined in two ways : by what man has inherited in the chaos of landscape's natural form, and by what he has done with that heritage. Rocks, soils, hills, valleys, plains, he can do but little to alter. But given these materials and limitations he is free to do as he likes with his landscape ; and while he cannot literally mould and shape it to any extent, he is always consciously or unconsciously adapting it to suit his own needs.

The primary purpose of landscape adaptation anywhere is to produce the means of human subsistence—an essentially economic motive. But there is another kind of adaptation which may be carried on alongside this economic one, and sometimes even independently of it—adaptation for æsthetic purposes, for the creation of a countryside which, besides producing the means of subsistence, may be a comfortable and a pleasant place to live in.

The full realisation that man is in a large measure the creator of his own environment is of fundamental importance to the appearance of that landscape. When once he ceases to realise and acknowledge his role of creator, there is little chance of his achieving beauty or order in either town or countryside.

ECONOMICS AND THE LANDSCAPE

Some of the effects of trade, commercial and industrial expansion on the landscape of Norway were outlined by Mr. SIGURD HOFF when he spoke on "Economics and the Landscape" at the second session of the Conference on August 10. Mr. Hoff said :—

Due to financial conditions and the characteristics of Norwegian trade, modern

technique has not marked the scenery to the same extent as is the case in the U.S.A., England or our neighbouring countries, Sweden and Denmark.

Our natural lines of trade are shipping, whaling, fisheries, industry and tourist accommodation. The agriculture is not sufficient for self-support. Still, forestry is being extensively exploited.

During the war and after, the reconstruction efforts put an end to all technical development. It is true that large projects are being planned : exploitations of waterfalls, erection of iron mills, aluminium, artificial silk and nitrogen industries, fish refineries and the like. However, it will take years before these plans can actually be carried out.

With regard to the extension of highroads and railways, the same difficulties present themselves. Large operations are being planned which may not be commenced before the devastations of war have been repaired.

Nor in agriculture and forestry has it been possible to take advantage of modern technical implements to such an extent that they form a feature of the landscape. It is true that, during post-war years, tractors, bulldozers, engine-driven saws and lorries have been employed in forestry and agriculture alike, but currency restrictions have only rendered possible that a small portion of the necessary gear has been procurable.

Since the war a severe shortage of professional labour has been in evidence, and this shortage can only be alleviated by means of an increased contribution by technical facilities.

Consequently, there is no doubt that gradually, and according to currency allowances, we shall see an increased application of machinery in agriculture and forestry, industry and communication, which by and by will have its effect on the scenery.

Where the landscape is developed without restriction and private trade interests are being given unlimited room for action, we notice that the natural assets of the landscape are being constantly encroached upon. As a rule, such encroachments cannot be put right except by disproportionately large expenditure. Therefore, efforts have been made to make all development within a region comply with a plan. By doing this, the most economical exploitation of the land may be attained. This system is called a Regional plan.

Provisionally, such plans have been made to apply to the war devastated areas. It is intended that by and by the plan is to be extended to comprise the entire country.

Due to its topographical conditions, the country is divided into sharply defined regions, consisting of a city with its hinterland. The principal part of the south-east of Norway with Oslo constitutes such a natural region.

Prior to such planning, a comprehensive economic and social survey is made of the region.

To prepare such a survey requires the co-operation of a number of experts of the various subjects: geographers, psychologists, civil engineers and architects. The landscape architects ought to join this team at an early date.

In the first place, the work of a landscape architect will consist of recording the valuable features in scenery and vegetation and preparing directions for their protection.

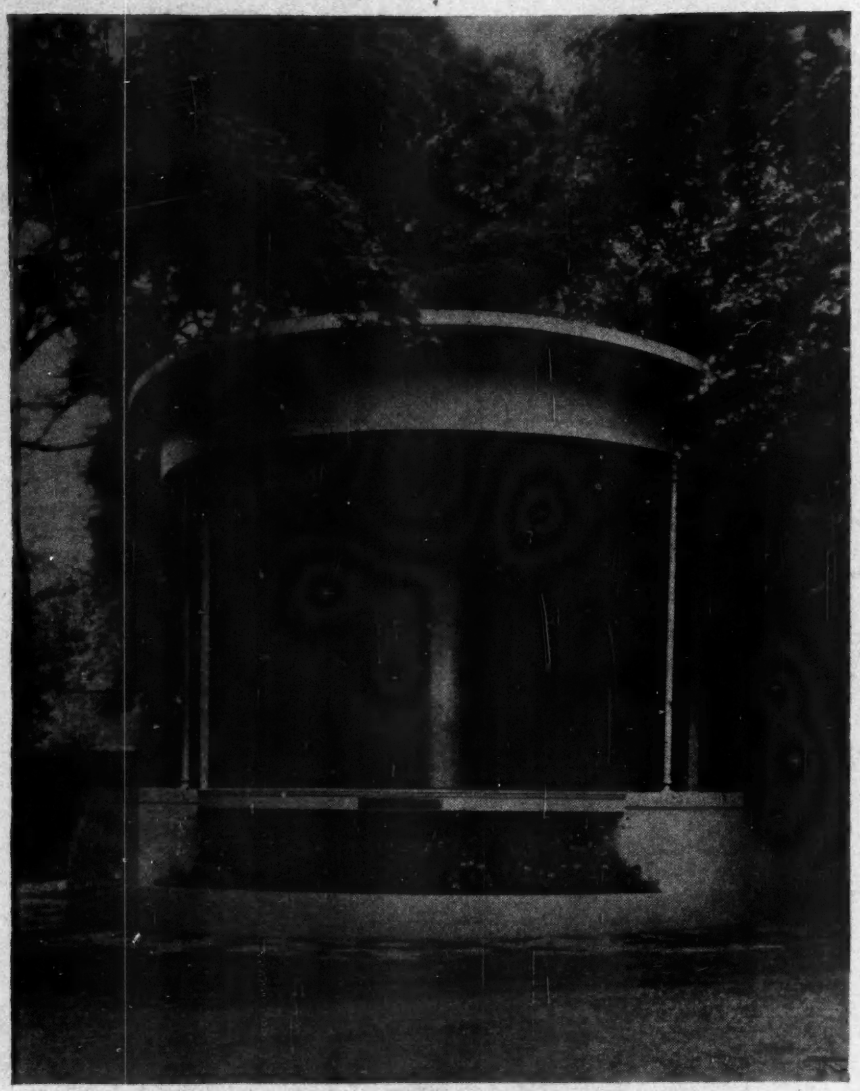
The most important step will be, therefore, to decide where buildings are to be erected, and where parks, sports areas, open air grounds, national and natural parks, forestry and agricultural areas are to be situated.

In our country, where the cultivated and exploitable soil is very sparse, very great importance ought to be attached to its

From the International Exhibition of Landscape Architecture.

JONES BEACH PARK ON THE SOUTH SHORE OF LONG ISLAND

Built in 1931 by the Long Island State Park Commission. The two bathhouses, in the foreground and background, have space for 15,000 bathers. The parking fields capacity is 15,000 cars. The developed beach is two miles long and is 90 acres in area. The beach in the right corner is on an inland bay and provides still-water bathing. Complete recreational facilities exist to the rear of the broadwalk. The above view is looking west.



From the International Exhibition of Landscape Architecture.

CASTLE PARK BANDSTAND, WHITEHAVEN, CUMBERLAND.

J. A. Dempster, F.R.I.B.A. (Miners' Welfare Commission), Architect.

maintenance as agricultural land, bearing in mind a change to horticulture and intensive cultivation near the cities.

High-road arteries, building of industrial plants and dwellings will, where practicable, have to be placed on inferior or rocky ground.

In Norway, steps have recently been taken to give authorities the right of expropriating land for implementing a plan where voluntary efforts have been unsuccessful.

ENGLISH LANDSCAPE PROBLEMS

Potential developments in landscape in this country were outlined by Mr. James W. R. Adams, V.P.T.P.I., F.R.G.S., F.I.L.A., who said: In the past, agricultural uses produced the patterns in the land we delight in. Most other uses since the Industrial Revolution have produced the spoliation of which we are now so conscious. The C.P.R.E. and other voluntary bodies have in recent years awakened this consciousness. We are now at the stage when we are about to attempt conscious control (by planning) and conscious design (by landscape architecture) of these changing uses, to prevent spoliation and to secure a new landscape as fine in its new way as was the pre-industrial agricultural landscape.

Landscaping on this scale must be no mere æstheticism, but must be founded on proper appreciation of economic uses.

The urgency of ensuring maximum food production makes it essential that we should secure maximum farming efficiency. Three possible lines of development confront us—each greatly affecting the landscape: (i) Large scale mechanised farming—vast open fields such as in East Anglia, and on Salisbury Plain. There are dangers here of lack of shelter and soil erosion. (ii) Small scale mixed farming, not so great an enlargement of traditional pattern—but enormous changes of detail required. Here there is need for reorganisation of farm boundaries, of field sizes and shapes, for new farm buildings and workers' cottages, new farm roads and other facilities. (iii) Changes in the predominant type of farming, such as the conversion of Romney Marsh grazing lands to arable fields. This involves important social changes, provision of additional housing, schools and other services.

It is also necessary to provide for the foregoing purposes the maximum acreage of farmland: this involves the continuation and indeed intensification of the war-time policy of the reclamation of waste and semi-derelict land. Here the greatest scope is possibly in the improvement of hill grazing.

In general, there is a definite possibility in the next generation or two of an agricultural revolution comparable to that of the 18th century—and for the same reasons—applications of new machinery, farming techniques, and scientific ideas. Can these developments be designed to produce as fine a landscape as those 18th century changes did? In any event, prosperous agriculture can mean a prosperous-looking and interesting landscape, changing with the seasons.

Next to farming, forestry is the largest land use in actual acreage, and the plans of the Forestry Commission provide for an extension of the afforested area to 9 per cent. of the total land area.

With regard to mineral workings: these include (*a*) Cement quarries—in many parts of chalk and limestone country, and therefore in some of the best scenery (Downs and Peak District); (*b*) gravel pits—in river valleys, often wasting best farming soils (as in Thames and Lea valleys); also on glacial gravels, as in Cheshire; (*c*) open cast coal—anywhere in coal measures where coal seams are near the surface, although it should be noted that underground mining operations should be planned with regard to surface development; (*d*) open cast iron (there are already extensive areas in Lincs and Northants, and potential areas on long, narrow Jurassic belt from Banbury to Humber); (*e*) miscellaneous workings covering smaller areas—china clay, brick clay, stone quarries, etc.

The first four groups are rapidly developing. It is unlikely that any sources of gravel can be left untapped owing to the demand for building operations. Coal is the chief hope for the economic recovery of Great Britain. Iron is of almost equal importance.

The dangers of the waste of productive land and derelict landscape are obvious.

The best solution is one that answers both problems—the return of land to productive use, either of farm or forest, commonly but somewhat loosely known as "restoration." This involves conserving topsoil, levelling out areas after mineral working is finished and spreading soil. It is being done in open cast coal areas, such as at Wentworth Woodhouse: but some doubt exists as to efficacy of results. Another example is the Jellicoe Pitstone cement works scheme. Failing restoration to productive use, some recreational uses are normally possible, *e.g.*, chain of lakes in claypits in the Jellicoe Hope Cement Works scheme: aquadrome at Rickmansworth in worked-out gravel pits. Whichever objective is aimed at, the process involves a plan for the restoration of the land step by step with the completion of the extraction of its minerals. New soil-moving machinery has made economically possible much that a few years ago would have been impracticable.

There are many other economic uses of land which will change its appearance. Of these the most important probably are: (i) The new motor road—its scale is far greater than the scale of the countryside; the increase of its width (dual carriageways, cycle tracks), possibly parallel landing and taking off strips for aircraft and the scale of its sweeping and super-elevated curves for fast traffic; (ii) water catchment schemes—whether for water supply as

such or as a source of electric power—creating great new lakes in mountain country and bringing artificial elements into areas now largely wild nature ; (iii) service training areas, particularly for tanks and armoured vehicles and gunnery ranges ; (iv) land required for new communities, such as New Towns.

Once the questions of function are properly dealt with, the landscape problems may be summarised as the necessity of integrating these functions with the existing character of the countryside, of siting buildings and aligning roads in relation to the lie of the land, and of associated planting to link with existing elements.

HOUSING AND THE LANDSCAPE

The third session of the Conference was devoted to " Housing and the Landscape."

Introducing the subject, MR. HOLGER BLOM, S.A.R., F.S.T., of Sweden, said : Every community may be divided into three elements : (1) indoor-living, *i.e.*, at home or in the workroom ; (2) outdoor-living, *i.e.*, the garden, the parks, reservations, playgrounds ; (3) spaces for traffic, *i.e.*, streets, squares and areas for different means of transport.

All three have the same significance.

Gardens and parks in our community are not a luxury we can do without. They are a necessity. The parks have a social and hygienic mission of the greatest importance. Every building must have a share in a near-by park, private or public.

Owing to the rapid growth of Stockholm in recent years, considerable effort has had to be expended on the social and hygienic functions of the parks.

On a modern map of Sweden you will notice the great difference there is in the relationship between the " housing-park " in the old part of the town and the recently utilised areas. In the old town the parks are small dots put in between the houses. In the new developments the housing groups are more like islands in the parks.

In the old part of the city of Stockholm, built before 1920, there is about 11.5 square metres (124 square feet) per inhabitant. A modern suburb (Vastertorp) has about 41.5 sq. metres (448 sq. ft.) per inhabitant. By nature Stockholm has a beautiful but very hilly terrain so that usually you can only count on about one-third of the park for playing-fields. Formerly the town planners " cut down " all hills and tried to make the building-surface even. This made the town look gloomy. But now, in most of the new town planning, the houses are built on the hills and the valleys are saved for park use.

In the above figures of park areas, private vacant space is not counted. The new town planning has very particular regulations as to how much of the ground plot must be kept clear. Also the law gives the authorities a right to demand that the private lot be laid out in a garden-like way. No visible borders are put up between, say, the garden of an apartment house and an adjoining park. This gives the impression of a house in a park. This still further widens the landscape architect's range of work and includes the space around one-family houses, apartment-houses, military institutions and hospitals, schools and other public buildings and now, even, to quite a large extent around factories. This is done mostly for the comfort of the employees but also there is a certain publicity good-will in a well-planned garden.

How much does this cost ? Just a few figures. The *public* park area of Stockholm is about 18,560,000 sq. metres (4,591 acres). The maintenance of this area costs per year 2,785,000 sw. crowns (£190,000) which is 4 sw. cr. (7s.) per inhabitant. Recently we have been spending for new parks each year about 1,000,000 sw. cr. (£70,000). In addition this budget of the park department includes 150,000 sw. cr. (£10,300) for free open-air theatres and free park concerts, 345,000 sw. cr. (£23,400) for the organisation of the playground supervisors. (The sports grounds belong to a separate department.)

The work done by private enterprise around buildings amounts to about 5:00 sw. cr. (8s.) per sq. metre per year.

The remarks made by MISS JUDITH LEDEBOER, A.R.I.B.A., F.I.L.A., may be summarised as follows : The problem of the landscape architect in dealing with extensive housing schemes is the achievement of a balance between formal and informal layout, and between private upkeep and the high cost of communal maintenance.

In England, the food production requirements emphasise the value of the cottage garden design, where the hedge pattern resembles the field enclosure. On the Continent, greater communal layout is reflected in communal fruit tree planting schemes.

The extension of the agricultural pattern in miniature into English suburban schemes has not always produced satisfactory results, for the requirements of privacy and road access to each house has reduced the scale of landscaping to inappropriate proportions. A greater freedom of use of tree planting in open spaces is necessary. The informal pattern relieves the tendency to formal grouping of buildings. The high cost of maintenance may lead to reconsideration of the treatment of common open space.

The difficulties of landscape treatment of densely developed urban areas is proportionate to the size of towns. Maintenance of access to the countryside and open air entertainment for town populations is essential to relieve pressure on planning in urban areas, where special attention needs to be given to the use of open space for the child and adolescent population. Pressure of space on urban schemes in England has led to rigid segregation of paved spaces for children from protected green areas which provide the necessary foil to buildings.

The housing maintenance costs following from extension of the communal aspects of landscaping must be accepted. The employment of fully qualified landscape architects can ensure not only that the value of good planting is retained, but that such schemes as are put forward reduce costs to the minimum.

RECONSTRUCTION IN HOLLAND

An account of post-war reconstruction and landscaping work in Holland was given by MISS C. POLAK-DANIELS. After describing the influences contributing to the general appearance of the Dutch countryside, Miss Polak-Daniels said :

After the war a Government committee for the reconstruction of all agricultural and landscaping parts was installed. This committee divided the severely damaged parts of our country into blocks and appointed landscape architects for the landscaping of each of these blocks. They are part of the Institute of Agricultural Restoration. However, they had not the intention to reconstruct just as it had been, but to remodel and to improve in order to bequeath a better landscape, where it will be worth while for the coming generation to live.

It is an absolute necessity to be as careful and economical as possible with our scenic beauty as it will become more scarce in a country so small, with so high a birth-rate, and with the present uncertainty of our colonies, where a lot of our population always found their living.

Therefore, it was found necessary to make maps of the situation as it was, as it is and as we would like it to be. Those who are familiar with this kind of work will know how difficult this task that is lying ahead of us will be. However, like all evil things, the war has brought us a great advantage, namely that through the ruins our people are now far more aware of the scenic beauty of the country, and for that reason we have started with great intensity the Governmental policy of care of landscaping. From so many negative things there has grown something very positive. The manner in which the destruction has taken place has to be the indication to the landscaper in a certain district whether reconstruction or re-shaping has to be chosen. Pre-eminent in our landscape are the farms which are characteristic of the surrounding scenery. Of these farms 8,212 were destroyed.

In order to carry out the work some preliminary research is essential, but we have to go ahead with some speed as there exists such an enormous shortage of dwellings that the rebuilding of houses is an urgent necessity. The one and the other have to go hand in hand and the different kinds of damage done to our country make all the difference in the method in which this reconstruction and regeneration of an area will be taken in hand.

In the districts where the passing troops caused destruction on their way, it is evident that the reconstruction has to fit in the remaining surroundings. In order to urge the population to proceed with restoration, the Treasury introduced grants for repairs.

As far as the replanting of woods and of Government roads is concerned the supervision is in the hands of the Government Forestry Service who can grant subsidies up to 50 per cent. for all wood-replanting with a commercial wood-value. This has resulted in many landscape projects of extreme scenic beauty not being considered by the Governmental Forestry Service. To remedy this the Governmental Committee for the Restoration of the Landscape has the right to give on all these special occasions an extra grant, varying from 10 to 90 per cent. of the gross expense. These subsidies are given in order to do full justice to those who lost their properties.

[A report of the remaining sessions of the Conference will be given in a subsequent issue.—ED].

New Architectural Guide Book.

The tradition of badly produced guide books has died hard, but the new series now being produced by the firm of John Murray shows a marked improvement on their old set which, although good of their kind, exhibited many of the faults of this type of literature. Messrs. John Betjeman and John Piper, the authors, have dispensed with the trimmings and have assumed that the reader is interested in architecture, churches, mansions, houses and cottages. All are beautifully described and photographed. Buckinghamshire, which has become so much of a " home county," opens the series, and the greater and lesser known beauties of this county are charmingly described.

TOWN AND COUNTRY PLANNING ACT, 1947

By NORMAN P. GREIG, B.A., Barrister-at-Law, F.R.San.I., F.I.Arb., etc.

6.—COMPENSATION FOR THE COMPULSORY ACQUISITION OF LAND

THE acquisition, including compulsory acquisition, of designated land was dealt with in the last article. Part V of the Act is concerned with the compensation to be paid for compulsory acquisition. Of this Part, Section 50 does away with the temporary basis of assessment as contained in the 1944 Act, Part II, viz. by reference to prices current on March 31, 1939, and returns again to the current market price criterion. In other words, the compensation will be based upon "existing use value" of the land, based upon the prices current at the date of the service of the notice to treat. But compensation in the case of land compulsorily acquired after July 1, but following upon a notice to treat, served *before* that date, will be assessed under the 1944 Act. The provisions of the Seventh Schedule to the present Act are to apply in relation to land compulsorily acquired in pursuance of a notice to treat served *after* the commencement of the 1944 Act (i.e., Nov. 17, 1944), and *before* the passing of the present Act (Aug. 6, 1947).

COMPENSATION FOR COMPULSORY ACQUISITION AFTER THE "APPOINTED DAY"

Section 51 gives rules for the assessment of compensation where land has been compulsorily acquired by Government departments, or public or local authorities, where notice to treat has been served *after* the "appointed day." As mentioned above, the assessment will be based on existing market prices and on the basis of "existing value." The "existing use value" is to mean the value of the land assessed on the assumption that permission to develop would be granted only for one of the classes mentioned in the Third Schedule. Generally speaking, such development covers the following matters:

1. Replacing from time to time of buildings which were in existence on the "appointed day" or were destroyed between Jan. 7, 1937 and that day, subject to the 1,750 cu. ft. restriction previously mentioned (see Article 2); 2. Extension of buildings as above, and of buildings in replacement of them, provided the building erected in replacement does not increase the original building by more than 10 per cent. or 1,750 cu. ft. in the case of dwelling houses; 3. Conversion of dwelling houses into flats, and 4. Extension by 10 per cent. of the area of land or part of a building which is used on the "appointed day" for a purpose different from that for which the remainder is used.

The Section further lays it down that if, before the date of a service of a notice to treat, planning permission has been given in regard to any development other than the above, then the land is to be valued as if planning permission had not been granted unless either a sum has been paid as a development charge (under Part VII), or there is no development charge payable.

The use of land for the purpose of agriculture or forestry is not considered as development under the Act (Section 12). It will, therefore, always be assumed, for the purpose of assessment of land values, that the land could be used for those purposes.

ELIMINATION OF "VACANT POSSESSION VALUE"

Section 52 is designed to avoid the payment by authorities acquiring land of a special scarcity value which has become attached to land with right of immediate or early vacant possession. The Section provides that such interests are to be valued by interposing in the title a "notional lease" terminating on Jan. 1, 1954 and beginning on the date of notice to treat. Where the interest does not carry an immediate right to vacant possession the "notional lease" is to commence on the day on which the right to possession arises. In regard to leasehold interests expiring before 1954, the notional lease will end on the day previous to the termination of the lease. The conditions of such lease are that the tenant would be liable to pay all tenants' rates and taxes, to bear cost of repairs and insurance and other expenses, if any, necessary to maintain the land in the state in which it was on the date of the notice to treat. The rent is deemed to be either 5 per cent of the capital value of the premises (that is, the value for compulsory purchase of the freehold, free from encumbrances or other restrictions), or a reasonable rent under such a lease, whichever is the smaller.

COMPULSORY PURCHASE OF WAR-DAMAGED LAND WHICH HAS ATTRACTED CONVERTED VALUE PAYMENTS

Section 53 deals with compulsory acquisition of land in respect of which a "costs of works" payment is due under the War Damage Act, 1943, and such payment is, under Section 14 of the 1943 Act, converted into a "value" payment. The rule laid down by the Section is that the authority requiring it is to pay the full "existing use" value (subject, of course, in an appropriate case, to the "notional lease") of the property as though the war damage (to the actual property and not to the surrounding property) had been made good; and then the "converted value payment" will accrue to the acquiring authority. The owner will, it follows, receive a sum which covers both the compensation for the acquisition, and the war damage. In the case of war-damaged property, in regard to which a value payment would have been made in any case, the compulsory acquisition will not affect the amount of the value payment (nor the person to whom it is to be paid), so that the land will be acquired at its value after the damage.

COMPENSATION FOR REQUISITIONED LAND

By Section 54, this compensation is to exclude or eliminate the effects of requisition, including any increase in value resulting from the erection of buildings during the period of requisition, provided such buildings have been erected solely or partially at the expense of a person interested in the land. The value of the land is to be assessed as though it were not requisitioned.

COMPENSATION FOR COMPULSORY ACQUISITION AFTER AUGUST 6, 1947, AND BEFORE THE "APPOINTED DAY"

The purpose of Section 55, in regard to this matter, is that 1. Compensation is to be fixed by reference to prices of land current on Jan. 1, 1947, while 2. the land is to be regarded as subject, at the time of the notice to treat, to a permanent restriction preventing the carrying out of all developments except those specified in the Third Schedule to the Act (as to which, see above).

WAR-DAMAGED LAND WHERE COMPENSATION ASSESSED BY REFERENCE TO COST OF EQUIVALENT REINSTATEMENT

In certain cases, the Acquisition of Land (Assessment of Compensation) Act, 1919 (Sec. 2 (5)), provides for assessment of compensation on the basis of equivalent reinstatement, in cases where the land acquired is of no general demand in the market. In the case of such land compulsorily acquired in pursuance of notice to treat served after August 6, 1947, the "reasonable cost of equivalent reinstatement" is to be assessed by reference to the condition of the land immediately before the war damage occurred. Section 56, therefore, applies the Rule given by the 1919 Act, Sec. 2 (5), to cases where, because of war damage which could be covered by a cost of works payment, the land at the time being is not used for the special purpose.

ACQUISITION BY STATUTORY UNDERTAKERS, ETC.

Section 57 is intended to place statutory undertakers, in regard to compensation for compulsory acquisition, in the same position as Government Departments and local authorities. Before the coming into force of the present Act, they were outside the provisions of the 1919 Acquisition of Land, etc., Act, and the Town and Country Planning Act, 1944. The Section also provides that from the passing of the present Act the rate of interest on compensation, where entry is made on land before the payment of the compensation, is to be such rate as will be prescribed from time to time by Treasury regulations, and not the 5 per cent. as at present allowed under Section 85 of the Lands Clauses (Consolidation) Act, 1845.

(*To be continued*)

Guidance on Land Transactions.

The Minister of Health, Mr. Aneurin Bevan, has sent local authorities in England and Wales copies of a Treasury Memorandum summarising the effect of the 1947 Planning Act upon their transactions in land. In a covering circular he draws attention to some special points, the most important of which is that local authorities should take care not to pay more than the "restricted" or "existing use" value of land, except in certain special cases which the circular mentions.

The various circumstances in which local authorities will have claims on the sum of £300 million set aside for compensation are listed, and also those in which they will have to pay a development charge when developing land. The basis on which local authorities should now transfer or dispose of land is set out.

PRICE BUILD-UP TO-DAY

No. 5 (New Series)

Carcase timber for roofs with Hips and/or Valleys. Aluminium eaves gutter and fittings and rainwater pipe and fittings. L.C.C. pipe and fittings.

By " CAIN " (V. C. ABELL).

AN increase or decrease in wage rates usually necessitates a complete revision of the cost of labour in estimating data. Referring to the recent minor increase in wage rates, *i.e.*, craftsmen ½d., and labourers ¼d. per hour, possessors of the booklet, " Price Build-Up To-day " in Grade " A.1 " and " A.2 " wage rate areas will find no need to revise any of the rates shown. On reference to the analyses under the heading " Total Cost at Wage Rates," the column headed Grade "A" now applies to Grade " A.1 " wage rate areas, the column headed Grade " A.1 " now applies to Grade " A.2," and the column headed Grade " A.2 " now applies to Grade " A.3 " areas.

Estimators in Grade " A " areas will get over the difficulty by striking an average between the rates shown for their areas and the Outer London rates. Outer London estimators will find that a number of the rates given will require adjustment.

ALUMINIUM GUTTER AND RAINWATER PIPES.

The writer has recently been interested in the erection of a pair of one-storey traditional type houses; aluminium gutter and down pipes were used, and for experimental reasons left unpainted. If the experiment is a success, and only time will tell, the use of this type of gutter and rainwater pipe may create a saving in erection and maintenance costs.

L.C.C. PIPE.

The analysis describes the pipe as having ears cast on, and the collective cost of a 6-ft. and a 3-ft. length has been taken to arrive at the cost of 1 ft. Invariably, to-day, the pipe is delivered in 5-ft. lengths without ears; this is probably a passing phase, but the use of holder-bats built into brickwork increases the cost. Holder-bats with brass bolts and nuts cost 4s. 6d., 4s. 8d. and 5s. each; assuming that the cost of pipe without ears is the same as described in the analyses and that two holder-bats are required per 9 ft. run, the increased costs including labour and material per ft. run of pipe are:

2-in. 1s. 4½d.; 3-in. 1s. 7½d.; 4-in. 1s. 8¾d.

The rates given are the net cost on site exclusive of site supervision, establishment charges and profit.

Grade " A.1 " wage rates are taken. For the method employed for arriving at the cost to the employer of employing labour, see *The Builder* for November 28, 1947, or " Price Build-Up To-day " (The Publisher, 4, Catherine-street, Aldwych, W.C.2, price 5s. 3d., post free).

CARCASE TIMBER FOR ROOF WITH HIPS AND/OR VALLEYS

Description of Item	Materials					Labour		Total Cost		
			Cost				Cost			
Sawn fir	Timber, including waste	Nails, including waste	Timber at per ft. cube 10s. 3d.	Nails at per lb. 4.2d.	Total cost of materials	Carpenter, including unloading	Carpenter at per hr. 35.68d.	Collection	s. d.	Unit
	Ft. cube	lbs.	Pence	Pence	Pence	Hours	Pence	Pence		
3½ in. × 2 in. rafters	1.07	.18	131.61	.75	**132.36**	.78	**27.83**	160.19	13 4¼	per ft. cube
4 in. × 1½ in. „	1.07	.20	131.61	.84	**132.45**	.80	**28.54**	160.99	13 5	per ft. cube
5 in. × 2 in. „	1.07	.15	131.61	.63	**132.24**	.72	**25.68**	157.92	13 2	per ft. cube
3½ in. × 2 in. collars	1.07	.15	131.61	.63	**132.24**	.85	**30.32**	162.56	13 6½	per ft. cube
4 in. × 1½ in. „	1.07	.17	131.61	.71	**132.32**	.90	**32.11**	164.43	13 8½	per ft. cube
5 in. × 2 in. „	1.07	.13	131.61	.54	**132.15**	.75	**26.76**	158.91	13 3	per ft. cube
4 in. × 1½ in. struts and strainers	1.07	.13	131.61	.54	**132.15**	.80	**28.54**	160.69	13 4¼	per ft. cube
4 in. × 2 in. „ „	1.07	.19	131.61	.79	**132.40**	.72	**25.68**	158.08	13 2	per ft. cube
4 in. × 3 in. „ „	1.07	.28	131.61	1.17	**132.78**	.65	**23.19**	155.97	13 0	per ft. cube
5 in. × 3 in. purlins	1.07	.35	131.61	1.47	**133.08**	.88	**31.39**	164.47	13 8½	per ft. cube
5 in. × 4 in. „	1.07	.30	131.61	1.26	**132.87**	.82	**29.25**	162.12	13 6¼	per ft. cube
6 in. × 2 in. „	1.07	.50	131.61	2.10	**133.71**	.90	**32.11**	165.82	13 9¾	per ft. cube
6 in. × 3 in. „	1.07	.35	131.61	1.47	**133.08**	.86	**30.68**	163.76	13 7¾	per ft. cube
6 in. × 4 in. „	1.07	.25	131.61	1.05	**132.66**	.80	**28.54**	161.20	13 5¼	per ft. cube
7 in. × 1½ in. hips or valleys	.064	.02	7.87	.084	**7.95**	.06	**2.14**	10.09	0 10	per ft. run
7 in. × 1½ in. „	.076	.02	9.34	.084	**9.42**	.07	**2.49**	11.91	1 0	per ft. run
7 in. × 2 in. „	.101	.02	12.42	.084	**12.50**	.09	**3.21**	15.71	1 3¾	per ft. run
8 in. × 1½ in. „	.072	.03	8.85	.126	**8.97**	.07	**2.49**	11.46	0 11½	per ft. run
8 in. × 1½ in. „	.087	.03	10.70	.126	**10.82**	.08	**2.85**	13.67	1 1¾	per ft. run
9 in. × 1½ in. „	.082	.03	10.08	.126	**10.20**	.08	**2.85**	13.05	1 1	per ft. run
9 in. × 1½ in. „	.098	.03	12.05	.126	**12.17**	.09	**3.21**	15.38	1 3½	per ft. run

ALUMINIUM GUTTER

Description of Item	Materials											Labour					Total Cost			
						Cost								Cost						
To arrive at cost per ft. run the collective cost of one 6 ft. and one 3 ft. has been taken	Gutter inc. waste	Galvanised fascia brackets	Screws	Red lead putty	Galvanised gutter bolts	Gutter at per ft. run	Brackets at each 6.66d.	Screws at per doz. 1.7d.	Putty at per lb. 8.0d.	Bolts at per doz. 4.0d.	Total cost of materials	Plumber	Mate	Plumber at per hr. 35.68d.	Mate at per hr. 28.80d.	Total cost of labour	Collection	Adjustment	s. d.	Unit
	Ft. run	Number	Dozen	lbs.	Dozen	Pence	Pence	Pence	Pence	Pence	Pence	Hours	Hours	Pence	Pence	Pence	Pence	Pence		
4 in. half round cast aluminium eaves gutter.	1.07	.26	.045	.037	.0147	at 16.5d. 17.65	1.73	.076	.296	.059	**19.81**	.09	.09	3.21	2.59	**5.80**	25.61	—	**2 1½**	**per ft. run**
4½ in. do. do.	1.07	.26	.045	.04	.0147	at 17.5d. 18.72	1.73	.076	.32	.059	**20.90**	.10	.10	3.56	2.88	**6.44**	27.34	—	**2 3½**	,,
Note.—The following are extra over eaves gutter. The cost of 1 ft. of gutter is deducted for angles and 9 in. for nozzles.																				
4 in. half round cast aluminium angles.	Number 1	—	—	.22	.087	Fitting 34.0	—	—	1.76	.348	**36.10**	.35	.35	12.48	10.08	**22.56**	58.66	Deduct 25.61	**2 9**	**each**
4½ in. do. do.	1	—	—	.24	.087	35.0	—	—	1.92	.348	**37.26**	.35	.35	12.48	10.08	**22.56**	59.82	27.34	**2 8½**	,,
4 in. do. nozzles	1	—	—	.22	.087	30.0	—	—	1.76	.348	**32.10**	.25	.25	8.92	7.20	**16.12**	48.22	19.20	**2 5**	,,
4½ in. do. do.	1	—	—	.24	.087	30.0	—	—	1.92	.348	**32.26**	.25	.25	8.92	7.20	**16.12**	48.38	20.50	**2 4**	,,
4 in. do. stop end nozzles	1	1	.17	.22	.087	27.0	6.66	.28	1.76	.348	**36.04**	.25	.25	8.92	7.20	**16.12**	52.16	19.20	**2 9**	,,
4½ in. do. do.	1	1	.17	.24	.087	28.0	6.66	.23	1.92	.348	**37.20**	.25	.25	8.92	7.20	**16.12**	53.32	20.50	**2 9**	,,
4 in. do. stop end	1	—	—	.22	.087	11.0	—	—	1.76	.348	**13.10**	.09	.09	3.21	2.59	**5.80**	18.90	—	**1 7**	,,
4½ in. do. do.	1	—	—	.24	.087	11.0	—	—	1.92	.348	**13.26**	.09	.09	3.21	2.59	**5.80**	19.06	—	**1 7**	,,

ALUMINIUM R.W. PIPE

Description of Item	Materials					Labour					Total Cost			
			Cost					Cost						
To arrive at the cost of 1 ft. the collective of one 6 ft. and one 3 ft. has been taken	Pipe inc. waste	Nails inc. waste	Pipe at per ft. run	Nails at per lb. 12.0d.	Total cost of materials	Plumber	Mate	Plumber at per hr. 35.68d.	Mate at per hr. 28.80d.	Total cost of labour	Collection	Adjustment		
	Ft. run	lb.	Pence	Pence	Pence	Hours	Hours	Pence	Pence	Pence	Pence	Pence	s. d.	Unit
2½ in. aluminium r.w. pipe with ears cast on	1.05	.038	at 31.78d. 33.36	.45	**33.81**	.08	.08	2.85	2.30	**5.15**	38.96	—	**3 3**	**per ft. run**
3 in. do. do. ...	1.05	.038	at 35.56d. 37.33	.45	**37.78**	.09	.09	3.21	2.59	**5.80**	43.58	—	**3 7½**	,,
Note.—Swannecks and shoes are extra over r.w. pipe. The cost of 1 ft. 6 in. is deducted for swannecks and 6 in. for shoes.														
2½ in. do. swanneck 9 in. proj.	Number 1	—	Fitting 77.0	—	**77.00**	.18	.18	6.42	5.18	**11.60**	88.60	58.44	**2 6½**	**each**
2½ in. do. 12 in. proj.	1	—	88.0	—	**88.00**	.18	.18	6.42	5.18	**11.60**	99.60	58.44	**3 5½**	,,
2½ in. do. 15 in. do.	1	—	117.0	—	**117.00**	.18	.18	6.42	5.18	**11.60**	128.60	58.44	**5 10½**	,,
3 in. do. 9 in. do.	1	—	80.0	—	**80.00**	.18	.18	6.42	5.18	**11.60**	91.60	65.37	**2 2½**	,,
3 in. do. 12 in. do.	1	—	94.0	—	**94.00**	.18	.18	6.42	5.18	**11.60**	105.60	65.37	**3 4½**	,,
3 in. do. 15 in. do.	1	—	125.0	—	**125.00**	.18	.18	6.42	5.18	**11.60**	136.60	65.37	**5 11½**	,,
2½ in. do. shoe ...	1	.17	36.0	2.04	**38.04**	.20	.20	7.13	5.76	**12.89**	50.93	19.48	**2 7½**	,,
3 in. do. do. ...	1	.17	37.0	2.04	**39.04**	.20	.20	7.13	5.76	**12.89**	51.93	21.79	**2 6½**	,,
2½ in. do. head ...	1	.17	58.0	2.04	**60.04**	.25	.25	8.92	7.20	**16.12**	76.16	—	**6 4½**	,,
3 in. do. do. ...	1	.17	58.0	2.04	**60.04**	.25	.25	8.92	7.20	**16.12**	76.16	—	**6 4½**	,,

L.C.C. PIPE (HEAVY) WITH LEAD CAULKED JOINTS

Description of Item	Materials											Labour					Total Cost			
						Cost								Cost						
To arrive at the cost of 1 ft. the collective cost of a 6 ft. and a 3 ft. length has been taken	Pipe inc. waste	Nails inc. waste	Tarred caulking yarn	Jointing lead	Paraffin	Pipe at per ft. run	Nails at per lb. 12.0d.	Yarn at per lb. 12.25d.	Lead at per lb. 8.0d.	Paraffin at per pint 2.0d.	Total cost of materials	Plumber	Mate	Plumber at per hour 35.68d.	Mate at per hour 28.80d.	Total cost of labour	Collection	Adjustment	s. d.	Unit
	ft. run	lbs.	lbs.	lbs.	Pints	Pence	Pence	Pence	Pence	Pence	Pence	Hours	Hours	Pence	Pence	Pence	Pence	Pence		
2″ L.C.C. c.i. coated soil pipe with ears cast on ..	1.05	.038	.045	.27	.055	at 25.56d. 26.83	.45	.55	2.16	.11	**30.10**	.12	.12	4.28	3.45	**7.73**	37.83	—	3 2	per ft. run
3″ Do., do. ..	1.05	.038	.062	.40	.075	at 28.22d. 29.63	.45	.75	3.20	.15	**34.18**	.15	.15	5.35	4.32	**9.67**	43.85	—	3 8	,,
4″ Do., do. ..	1.05	.038	.075	.48	.11	at 36.22d. 38.03	.45	.91	3.84	.22	**43.45**	.17	.17	6.06	4.89	**10.95**	54.40	—	4 6½	,,
NOTE.—The following are extra over soil pipe. The cost of 1 ft. 6 in. of pipe is deducted for swannecks and branches 1 ft. for bends and 6 ins. for shoes.																				
	Number					Fitting												Deduct		
2″ Do., bend ..	1	—	.20	1.20	.25	54.0	—	2.45	9.60	.50	**66.55**	.25	.25	8.92	7.20	**16.12**	82.67	37.83	3 9	each
2″ Do., do., with door	1	—	.20	1.20	.25	177.0	—	2.45	9.60	.50	**189.55**	.25	.25	8.92	7.20	**16.12**	205.67	37.83	14 0	,,
2″ Do., single branch.. ..	1	—	.40	2.40	.50	66.0	—	4.90	19.20	1.00	**91.10**	.50	.50	17.84	14.40	**32.24**	123.34	56.74	5 6½	,,
2″ Do., shoe ..	1	.038	.20	1.20	.25	39.0	.45	2.45	9.60	.50	**52.00**	.20	.20	7.13	5.76	**12.89**	64.89	18.91	3 10	,,
3″ Do., bend ..	1	—	.28	1.80	.33	66.0	—	3.43	14.40	.66	**84.49**	.32	.32	11.41	9.21	**20.62**	105.11	43.85	5 1½	,,
3″ Do., do., with door	1	—	.28	1.80	.33	189.0	—	3.43	14.40	.66	**207.49**	.32	.32	11.41	9.21	**20.62**	228.11	43.85	15 4½	,,
3″ Do., single branch.. ..	1	—	.56	3.60	.66	99.0	—	6.86	28.80	1.32	**135.98**	.60	.60	21.40	17.28	**38.68**	174.66	65.77	9 1	,,
3″ Do., shoe ..	1	.038	.28	1.80	.33	49.0	.45	3.43	14.40	.66	**67.94**	.25	.25	8.92	7.20	**16.12**	84.06	21.92	5 2½	,,
4″ Do., bend ..	1	—	.34	2.20	.50	92.0	—	4.16	17.60	1.00	**114.76**	.35	.35	12.48	10.08	**22.56**	137.32	54.40	6 11	,,
4″ Do., do., with door	1	—	.34	2.20	.50	224.0	—	4.16	17.60	1.00	**246.76**	.35	.35	12.48	10.08	**22.56**	269.32	54.40	17 11	,,
4″ Do., single branch.. ..	1	—	.68	4.40	1.00	133.0	—	8.32	35.20	2.00	**178.52**	.65	.65	23.19	18.72	**41.91**	220.43	81.60	11 7	,,
4″ Do., swanneck 12″ projection	1	—	.34	2.20	.50	187.0	—	4.16	17.60	1.00	**209.76**	.35	.35	12.48	10.08	**22.56**	232.32	81.60	12 6½	,,
4″ Do., do., 18″ projection ..	1	—	.34	2.20	.50	214.0	—	4.16	17.60	1.00	**236.76**	.35	.35	12.48	10.08	**22.56**	259.32	81.60	14 9½	,,
4″ Do., soil bend with large socket for earthenware.. ..	1	—	.34	2.20	.50	177.0	—	4.16	17.60	1.00	**199.76**	.50	.50	17.84	14.40	**32.24**	232.00	81.60	12 6½	,,

THE TRAINING OF GENERAL FOREMEN

REPORT APPROVED BY N.F.B.T.E. COMMITTEE

THE following report on the training of general foremen has been approved by the executive committee of the National Federation of Building Trades Employers, who have already started discussions with the Ministry of Education with a view to commencing courses this winter.

In February last the National Federation of Building Trades Employers asked the Institute of Builders, the Ministry of Education, the London Builders' Foremen's Association and the National Federation of Clerks of Works and Builders' Foremen to participate in the formation of an *ad hoc* committee it proposed to set up to formulate "a short term scheme for the training as general foremen of adult male craftsmen in the building industry." All these organisations accepted the invitation and nominated representatives as follows:—N.F.B.T.E., H. J. Falkus, A. L. Peyman, O.B.E., G. O. Swayne and D. E. Woodbine Parish. Institute of Builders: E. C. Holloway and F. J. Gayer (resigned in June, 1948, owing to ill-health); Ministry of Education, J. B. M. Hay, M.C.; London Builders' Foremen's Association, E. J. Blaber and C. E. Pocock; National Federation of Clerks of Works and Builders' Foremen: A. G. Raven and W. R. Toogood, with J. A. Paton Walker (N.F.B.T.E.) as secretary. The committee first met on March 24, when Mr. A. L. Peyman, O.B.E., was elected chairman. Subsequent meetings have been held on April 12, April 26, May 10, May 19, June 2, June 14, June 21 and July 15. During the discussions on syllabuses the committee invited and received the assistance of D. A. G. Reid and H. W. Mole, principals of the Brixton and Hammersmith Schools of Building, who were co-opted to full membership of the committee on June 2.

After reviewing the present position in the industry the committee decided to proceed on the following assumptions: (1) Modern developments in building technique have emphasised the need for an organised system of training in the duties and responsibilities of general foremen. (2) To formulate and set up such a system of technical education and training for men capable of qualifying for supervisory posts in the building industry would take some time, and a further period still would necessarily elapse before men trained under it would be available to the industry. (3) There is, in particular at the present time, a shortage of capable general foremen. (4) In view of this shortage and of the key position occupied in the industry by the general foreman, it is thought imperative that, before dealing with the general question of training for supervisory posts on a long term basis, attention should first be concentrated on the problem of training for general foremanship on a short term basis. (5) There are many men of mature age with craft training and experience as craft foremen who, with some special training and in a short period of time, would make capable general foremen.

Recommendations.

In the light of these assumptions, and to deal with the immediate problem of meeting the present shortage of general foremen, the committee makes the following recommendations: (1) That short intensive courses in the duties and responsibilities of general foremanship be provided at all technical colleges serving areas where the need for such courses exists. (2) That these foremanship courses be open to craftsmen of mature age with at least a good elementary education who either have some experience as general or craft foremen and some knowledge of all the basic trades; or hold an Ordinary National Certificate, a Final Certificate of the City and Guilds of London Institute in a normal building craft, or a qualification of similar standard; and are recommended by their employers or are accepted by an interviewing panel as suitable for training as general foremen; or, alternatively, not possessing the above qualifications are recommended by their employers and are accepted by an interviewing panel as suitable for training as general foremen. (3) That an interviewing panel or interviewing panels be set up where necessary in each region of the N.F.B.T.E. and that these panels be composed of a representative appointed by the N.F.B.T.E., a representative appointed by the Foremen's Associations, and a representative (preferably the head of the Building Department) of the Technical College in the area concerned. (4) That foremanship courses consist of one of the following: part-time instruction on one whole day a week during a period of approximately six months; or full-time instruction for two periods of two weeks each during a period of approximately six months; or part-time instruction outside working hours for not less than four hours a week during a period of approximately nine months. (5) That in foremanship courses training be given in the following subjects: Introductory general survey of responsibilities of a general Foreman, Elementary Mensuration and Surveying; Revision of General Building Practice; Site Planning and Organisation; Site Administration; Personnel Management and Welfare. (6) That not less than 58 hours be devoted to instruction in the first three subjects with field work in the summer in addition, and not less than 72 hours to the remaining subjects, making a grand total of 130 hours. (7) That payment of wages for the time spent during normal working hours in attending a foremanship course for which employees have been recommended by their employer be made by the employer. (8) That during the period of instruction the student be given opportunities by his employer of acting on a job as deputy to a general foreman. (9) That the satisfactory completion of a foremanship course be marked by the issue of an appropriate certificate. (10) That a standing joint committee be set up on the same basis as the *ad hoc* committee: to make the necessary arrangements with the Ministry of Education for the setting up of foremanship courses in areas where the need exists (in so far as this task is not completed by the *ad hoc* committee); to issue such notes for the guidance of instructors as may from time to time be necessary; to supervise and assist with advice the interviewing panels; to make such arrangements as may be desirable for the issue on behalf of the participating organisations of certificates to students on the satisfactory completion of a foremanship course; to deal with any inquiries and difficulties that may arise in connection with the proposed foremanship courses, and generally to keep foremanship training under review.

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SHORT-TERM SYLLABUS

Following is a syllabus for a short-term course of training:—

Introduction to the Courses.

A general survey of the responsibilities of a general foreman in the building industry with particular reference to the relationship and responsibility of the various parties and authorities prior to and during the execution of a building contract.

Notices, applications and obligations to authorities (including local authorities, power and water boards, factory inspectors, district surveyors, etc.)

It is suggested that three lectures of two hours each be allotted to this subject.

Elementary Mensuration and Surveying.

Introduction.—Drawings, scales and their uses. *Lineal Measurement.*—Measurement of length, use of rule, tape and chain, precautions to ensure accuracy. *Superficial Measurement.*—Revision of calculation methods, including duodecimals, measurement and calculation of areas of plane figures, using formulæ; introduction to Simpson's rule. *Cubic Measurement.*—Volumes; application of duodecimals, measurement and calculations for simple solids using formulæ. *Surveying Instruments.*—Use of spirit level and dumpy level, booking and checking; cross-sections; spot levels and contours. Reading of Ordnance maps; bench marks and datum levels. *Setting Out.*—Relating drawings to site. Use of profiles and templates.

It is suggested that eight lectures of two hours each be devoted to this subject supplemented with field practice in the use of chain, tape and level. If time permits the class should be introduced to the use of the theodolite and other instruments.

Revision of General Building Practice.

Prefatory Note.—The survey of building practice embodied in the following syllabus is too extensive to permit, within the time available for the course, detailed consideration of the technique involved in any of the individual sections. It is rather the intention that consideration should be given to the special difficulties which the general foreman is likely to encounter in supervising the site work associated with each particular section. In order to guide the treatment of the syllabus along these lines some notes for lecturers have been prepared. These notes should not be regarded as restrictive, but should be used as a guide to be amplified from the lecturer's own experience. Throughout the revision course the utmost use should be made of the practical experience possessed by members of the class. An important part of the training should be the taking of concise notes and the making of sketches to illustrate them. Extensive notes on materials and technical processes are not required. Opportunity should, however, be given for the examination and handling

of a selection of the materials under discussion.

General Memoranda.—Works of reference. Weights and measures. Definitions. Standard Method of Measurement. British Standards. Codes of Practice. Professional and other bodies connected with the Building Industry. *Excavation and Demolition.*—Manual and mechanical. Timbering and staging. Soil condition; water and its disposal. Back filling; handling and disposal. Demolition; protection of adjoining buildings and party walls. Protection of flues. Diversion of services. Shoring. Underpinning. Avoidance of nuisances. *Concreting.*—Cement: types, characteristics and incompatibilities; tests; storage; handling. Aggregates; types, character; grading tests; storage. Calculation of quantities; mixing and placing; consolidation and shrinkage; construction joints and finishing; curing. Testing. Reinforcement and formwork. *Brickwork.*—Materials: types and characteristics; storage and handling. Mortars. Setting out and bonding. Dampcourses. Temporary support to and protection of new work. Scaffolding. Shoring. Underpinning. Chimney shafts; flue linings and boiler setting. *Drainage.*—Systems; disposal of sewage and stormwater. Pipes and fittings; types and uses. Laying, jointing and finishing. Manholes. Ventilation. *Asphalting.*—Materials: properties. Horizontal; vertical; tanking. Roof and gutter work. *Masonry.*—Natural stones; cast concrete products; faience. Scaffolding, hoisting and fixing. Temporary support and protection. *Roofing.*—Materials: types and characteristics. Methods of fixing and finishing.

Carpentry and Joinery.—Materials: timbers; types, qualities, characteristics, seasoning and conditioning. Building boards, characteristics and uses. Adhesives. Storage. Moisture problems in new buildings. Preservation. Deterioration. Principles of timber construction; jointing methods; floors and roofs. Factors affecting efficiency of performance. Fitting and fixing of joinery and ironmongery. *Steel and Iron Work.*—Materials: types, properties, weights, gauges. Constructional steel work. Fire escapes; hand rails; collapsible gates and roller shutters. Architectural metal work. Metal windows, lantern lights, etc. Pressed steel products. *Plastering.*—Materials: limes, calcium sulphate plasters; working characteristics and method of setting. Sands; proportioning of mixes. Sequence of operations, setting and hardening requirements. Suspended ceilings. Fibrous plaster. Rendering; mixes and procedures; curing requirements. *Plumbing.*—Materials. Principal metals and alloys; characteristics. Uses; external, internal. Sheetwork; laying, fixing and jointing. Pipework; fixing and jointing. Sanitary and other fittings and brass work; storage and installation. Testing. *Mechanical and Domestic Services.*—Layout, installation, connection and testing of the following services; hot and cold water supplies, drainage and sanitation, gas, electricity, heating, ventilation and air conditioning, refrigeration, lifts and escalators, fire protection systems, lightning conductors, telephones. *Internal Finishes.*—(Walls, ceilings and floors). Types and characteristics. Materials, processes, installation, protection. *Glazing.*—Materials; types, uses and characteristics of glass and putty. Handling and storage. Sizes, weights and thicknesses. Bedding and fixing. Copper and leaded lights; patent glazing. Use of glass blocks. *Painting and Decorating.*—Constituents and characteristics of various types of paints and other surface coatings. Colour mixing and tinting. Surface preparation; applications, manual and mechanical; drying. Staining, graining and varnishing. Polishing. Special finishes. Paperhanging. *Theory of Structures.*—Steelwork and reinforced concrete. Piling. Solid and hollow tile floors. Insulated construction; heat, sound, vibration. *External Works.*—Roads, footways, site finishings, fencing. Tunnelling, ducts. Overhead services.

It is suggested that 18 lectures of two hours each be devoted to this subject.

Site Planning and Organisation.

Preliminary site planning.—(a) Hoarding and gantries, etc. (b) Access to and around the site to start and run the job. (c) Positioning of temporary building supplies (water, light, power, etc.) bearing in mind the permanent supplies. (d) Siting of offices and welfare accommodation, etc. (e) Placing of bulk materials including those of the sub-contractor. *Types of cranes, hoists, mixers and heavy plant available*—Pre-selection of sites. *Provision and facilities for and the co-ordination of the work of the sub-contractor and sub-trades.*

It is suggested that twelve lectures of two hours each be devoted to this subject.

Site Administration.

Charts and Schedules.—(a) Co-ordination of starting and completion time of sub-contractors and sub-trades in conjunction with the main contract. (b) Chart or schedules of labour requirements; material requirements; plant requirements; programme and schedule chart. *Drawings, Specifications, Bills of Quantities.*—Care and use; dating cancellation. *Record and Reports.*—Day works, variation orders, daily time and labour records, diary, site meetings, plant records, progress reports, etc. *Plant care and maintenance. Materials.*—How and when to order. *Internal correspondence and business letters.*—Form, filing, method. *Use of telephone.*—Need for courtesy and efficiency. *Personal relations on the job.*—Contacts with and methods of approach to the employer, the client, the local authority official, the architect, the surveyor, the sub-contractor, the sub-trader, etc. *Delegation of responsibility and authority on the job. Building law as affecting the builders' foreman.*—The London Building Act, 1930 (or provincial local bye-laws) with special reference to dangerous structures; local bye-laws; fire resisting construction and means of escape; foundations of walls; party walls. *Building Safety Regulations: Insurance obligations. Site costing, measuring, incentives.*

It is suggested that twelve lectures of two hours each be devoted to this subject.

Personnel Management and Welfare.

Records.—Responsibility of employers for custody of, and procedure regarding National Insurance, Holidays with Pay and Income Tax Cards. *Industrial Relations.*—National and Regional Working Rule Agreements. Disputes and their prevention. Conciliation machinery. *Welfare.*—Code of Welfare Conditions for the Building Industry (1948) Factory Form 1892. *Accident Prevention.*—Foremen's responsibilities. *Apprentices.*—Foreman's obligations as agent of the master to apprentices under the National Apprenticeship Scheme. *Leadership and the Foundations of Good Relations.*—Establishing contact, stimulating interest and discipline. Team building. Estimating capabilities of men. Giving instructions properly. *Personal Efficiency.*—Study. Trained thinking. Making decisions.

It is suggested that twelve lectures of two hours each be devoted to this subject.

Mr. Geoffrey T. Crouch.

We regret to record the death, on August 7, of Mr. Geoffrey T. Crouch, of the firm of G. T. Crouch, Ltd., of Kingston. Trained in estate agency, he later started estate development on a small scale. The business rapidly developed and several hundreds of houses were built in London and the home counties. Mr. Crouch, who was a former president of the local area of the London Master Builders' Association, was commissioned in the R.A.F. at the outbreak of war.

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PLOT OWNERS AND DEVELOPMENT CHARGES

MANY people who bought plots of land at "building-site" prices before the Town and Country Planning Bill was introduced in January, 1947, have asked the Central Land Board if they will have to pay a development charge when they build.

The Board now announce arrangements which affect private owners who owned single plots before January 7, 1947. They will be entitled, if they start to build a house on the plot for their own occupation on or before January 7, 1952, to a payment from the £300,000,000 fund equal to the development value in the land for the erection of a house. This should mean, in the absence of any marked change in market values, that the payment from the fund will broadly cover the development charge.

This payment will not be available until after the scheme for payments has been made and approved by Parliament, but these owners will be able to set off their development charge against it. They must, of course, put in a claim for a payment before March 31 next, and the Board advise them to do so as soon as possible.

A further announcement by the Board is to the effect that many people believe that if planning permission was obtained before July 1 (the "Appointed Day" under the Act), a charge is not payable for development begun after that date. This is not by itself a qualification for exemption. Land can only be certified as "ripe for development" (and therefore exempt from charge) if a building contract made within ten years before January 7, 1947, was in force on July 1, 1948, or if bye-law submission or a building application was made within the same ten-year period. And before development on such land is exempt from charge a certificate must be obtained from the Minister of Town and Country Planning. Application for such a certificate should be made on form LRD 1 (obtainable from the Ministry of Town and Country Planning or one of its Regional Offices), before July 1, 1949, or within such extended period as the Minister may allow in any particular case.

SCHOOL OF PLANNING AND RESEARCH

Examination Results.

The first session of the One-Year Diploma Course in Town and Country Planning ended on July 10. The following candidates passed the examinations:—*Distinction*: F. Forrest, A.R.I.B.A., (Yorks); J. M. Hirsh, A.R.I.B.A. (London); Mary C. Miller, A.R.I.B.A., A.A.Dip. (London); F. P. Tindall, M.A. (Surrey); J. Whittle, A.R.I.B.A. (Essex). *Pass*: J. L. Barber, A.M.I.Mun.E. (Loncaster); D. C. Clayton, A.R.I.B.A., A.A.Dip. (Sussex); Esmee M. S. Cousin, A.R.I.B.A. (Surrey); S. V. Desai, A.M.I.C.E., B.E. (Civil), Bombay; B. P. Field, A.R.I.B.A. (Middx); N. K. Gandhi, B.E. (Civil), Bombay; A. D. Geach, A.R.I.B.A. (London); B. O. Jensen (Denmark); J. R. Horton, A.R.I.C.S. (Herts); Ann M. MacEwen, A.R.I.B.A. (London); H. B. Marsden, A.M.I.Mun.E. (N. Wales); K. Munnich, B.Arch. (Glasgow) (Middx); R. J. Nichol, A.R.I.B.A. (Herts); D. L. Sabey, B.Sc. (Est. Man.) (Northampton); M. J. Shelly, B.Sc. (Est. Man.) (Leicester); J. C. P. West, A.R.I.B.A. (Herts); P. A. Westwood, A.R.I.B.A. (S. Africa); Joyce V. Wilson, A.R.I.B.A., A.A.Dip. (London).

IN PARLIAMENT

Airey Houses.

MR. MARPLES asked the Minister of Health how many instructions were issued by his department during the first six months of this year for modifications in the construction of Airey Houses; and how many houses under construction in that period he estimated were affected.

MR. BEVAN said the answer was two, affecting between three and four thousand houses.

MR. ECCLES asked the Minister of Health what steps he was taking to deal with the destructibility by fire of Airey houses; what would be the cost of the alterations; and who would bear the cost.

MR. BEVAN said that instructions had been issued for the replacement of certain materials, not an integral part of the Airey structure, used for internal wall linings. This should involve no extra cost except where the materials had already been fixed, and in the few cases of this kind an increased capital grant, under Section 17 of the Housing (Financial and Miscellaneous Provisions) Act, 1946, would be paid.

Building Research.

LT.-COL. PRICE-WHITE asked the Minister of Works if the Building Research Station at Watford had carried out tests as to the comparative expectation of life of the various British types of slates and French and Italian slates, and with what results.

MR. HERBERT MORRISON, who replied, said that the Building Research Station had co-operated with the British Standards Institution in developing tests and framing a British Standard for roofing slates (British Standard 680), taking account of practical experience of the durability of British and Continental slates. A range of British slates was examined when the British Standard was being prepared. Those known to have long expectation of life met the British Standard requirements. Others of comparatively poor reputation did not. The Building Research Station had also examined roofing slates from various European countries including France and Italy. A few of these foreign slates proved likely to be as durable as the better British slates, but many were inferior.

Requisitioned Premises.

COMMANDER NOBLE asked the Minister of Works how many hotels, large houses, small houses and flats, respectively, in the London Civil Defence Region, were at present requisitioned by the Government for other use than dwelling accommodation; and how many of each category had been released for use since June 30, 1947.

MR. KEY said that 21 hotels; 742 large houses; 306 small houses; and 1,223 flats were held on requisition by Government Departments at June 30 last in the London Civil Defence Region for purposes other than family dwellings. The number of each category released since June 30, 1947, was 11 hotels, 24 large houses, 124 small houses and 208 flats of which 4 hotels, 104 large and small houses, and 92 flats had been transferred to the Ministry of Health for housing purposes.

Replying to a further question in regard to the United Kingdom, MR. KEY said the number of hotels held in the United Kingdom (including London) by all Departments at June 30 last for use other than as family dwellings was 179 and the numbers of large houses, small houses and flats held by Departments other than the Health Departments, on the same basis, were 1,797, 889, and 1,309 respectively. Ninety-nine hotels, 397 large houses, 431 small houses and 237 flats had been released since June 30, 1947, of which 4, 93, 305 and 93 respectively, had been transferred to the Ministry of Health for dwelling purposes.

Housing in Scotland.

SIR BASIL NEVEN-SPENCE asked the Secretary of State for Scotland whether, bearing in mind the superiority of wooden houses to houses built of brick or concrete in northern latitudes, where gales and rain prevail, he would, in the exercise of his powers under Section 76 of the Agriculture (Scotland) Act, undertake to facilitate the importation of prefabricated wooden houses from Norway and other countries prepared to supply them.

MR. WOODBURN said he was afraid that the exchange position made the importation of prefabricated wooden houses difficult at present and that, in any case, the cost of these houses might limit their erection by crofters and cottars. If, however, when the new grants scheme was in operation there was a strong demand for such houses, he would consider what could be done.

MR. CARMICHAEL asked the Secretary of State for Scotland if he would prepare a supplementary housing programme, which would permit of an extension of the quota of temporary houses, particularly when there was little prospect, for some time, of an increasing supply of permanent houses and the need for houses was still serious and urgent in Scotland.

MR. WOODBURN said that the manufacture of all temporary houses to be provided under the Housing (Temporary Accommodation) Act, 1944, had been completed and no extension of the programme was contemplated.

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CLAY BUILDING BLOCKS

BUILDING RESEARCH STATION BULLETIN

The practical information available at the Building Research Station on clay building bricks is given in "National Building Studies. Bulletin No. 1: Clay Building Bricks," published for the D.S.I.R. by H.M. stationery office, price 1s., by post 1s. 2d.

The bulletin, which has been prepared by the Building Research Station, is divided into three parts, the first of which deals mainly with manufacturing processes. This is mainly description, intended primarily to give the user of bricks some insight into the methods used in manufacture. The opportunity is taken, however, to draw attention to the availability of technical information.

The second part deals with the properties and testing of bricks, starting from the practical standpoint that all testing and measurement of the properties of bricks has as its object, direct or indirect. to discover whether particular bricks are suitable for their job. The tests that bear on the properties generally required in brickwork are described and illustrated. These include compressive strength, permeability, thermal conductivity, resistance to weathering and the soluble salts contained.

The third part consists of notes on the efficiency of brickwork, and has the limited aim of showing to what extent tests on bricks indicate that the building in which they are to be used will be satisfactory. It also shows where caution is necessary, because the test data needs to be supplemented by attention to design and planning.

INSTITUTE OF BUILDERS

1948 EXAMINATIONS

The following successes in the 1948 examinations are announced by the Institute of Builders:—

LICENTIATE DIPLOMA: L. B. Allcorn, London; J. Ashfold, North Harrow; F. Atton, Rotherham; M. T. Barwick, Birmingham; R. F. Bexley, West Croydon; W. E. Booker, Leicester; S. Boustead, Annfield Plain; R. Brook, Pontefract; R. Brooke, Chilton; A. Brown, York; W. J. Bullen, Tunbridge Wells; L. J. Bush, South Bromley; H. M. Brunt, Oxford; R. L. Cansell, Harrow; B. W. Chapman, London; T. A. Clements, London; R. Cooper, Harpenden; W. E. Courtney, Belfast; C. H. Cox, Nuneaton; D. J. Cripps, London; P. L. Davies, North Wembley; L. A. Dexter, London; W. J. Dunn, Orpington; T. Duston, York; H. C. Enterkin, Glasgow; R. J. Everson, Wakefield; S. A. Frost, Cambridge; E. Goddard, Southend-on-Sea; R. Gordon, Hampton Hill; A. A. Gould, Thrybergh; F. W. Graham, Birmingham; A. J. Gray, Cardiff; W. H. Greed, Bexhill-on-Sea; A. W. Gynn, Ilford; F. J. Hallett, Hillingdon; R. A. Hamm, St. Leonards-on-Sea; W. F. Harbrow, Keston; N. B. Harries, Caerphilly; J. G. Harrison, Cambridge; T. J. Harrison, London; J. R. L. Heath, Wigan; A. F. Hinkins, Reading; A. H. Hinkins, Oxford; L. A. Holder, London; H. Horsfield, Bradford; S. Hughes, Dudley.

R. W. Irving, Sunderland; F. P. James, London; P. B. Jenkins, Southampton; N. Lester, Preston; W. J. Lingard, Stoke-on-Trent; G. A. Luton, London; W. T. Marks, Portsmouth; J. Melding, St. Helens; C. F. Michel, London; C. G. Mills, Chatham; G. Moore, London; W. Moore, Bradford; K. Moynihan, West Drayton; H. E. Newton, Reading; D. R. Oldham, Birmingham; R. H. Owens, London; F. W. G. Padwick, Iver; F. R. Peckett, Ashford; R. C. D. Perry, London; J. C. Pert, London; J. Pickles, Keighley; W. L. Poingdestre, Waterbeach; S. Reucroft, Leeds; L. Russell, Dover; H. Semke, Southend-on-Sea; P. R. Sinden, London; K. W. Smith, Maidstone; L. M. Smith, Hove; O. S. Smith, London; A. Stern, London; A. W. Strudwicke, Maidstone; G. L. Sykes, Bolton; D. Taylor, Conisborough; G. E. Taylor, London; H. F. Thomson, Cobham; G. M. Townsend, Fulford, York; P. E. Trench, London; W. R. Turner, York; G. S. Vickery, Harrow; D. F. Wallis, Maidstone; J. D. Watson, Welwyn Garden City; C. C. Westerman, Hove; B. Wheaton, Newcastle-on-Tyne; R. A. White, Crawley; K. S. Wigmore, Reading; E. Wimpenny, Conisborough; P. J. Wood, Bristol; P. H. Worthington, Coventry; A. Young, West Boldon.

ASSOCIATE DIPLOMA: A. J. Freston, L.I.O.B., Enfield; P. F. Hodges, L.I.O.B., Reading; F. Stenton, L.I.O.B., Norwich.

THE SCOTTISH BUILDER

NEW BUILDINGS

Airdrie.—Additions, etc., proposed to Albert school. W. Watt, architect, Albert-rd., Motherwell. Conversions, Ltd., contractors, Glasgow.

Edinburgh.—At West Bryson-rd., £25,000 building scheme to be carried out by the Edinburgh and Dumfries-shire Dairy Co., Ltd., Edinburgh.

Glasgow.—New offices and workshop to be erected at Stromness-st. by Wylie & Co., Ltd., 5, Cumberland-st., Glasgow.

Glasgow.—Alterations and additions at Dalkeith-ave., for which the architects are Thomson & MacCrae, 212, Bath-st., Glasgow.

Glasgow.—Additions, alterations, etc., at Thistle-st., to be carried out by Lawrie & Co., 25, St. Mungo-st., Glasgow.—Alterations and additions proposed to special school, Main-st., for which the architect is J. MacNab, 29, Bath-st., Glasgow.

Greenock.—Principal contractors for the re-erection of the old folks' hostel are J. & R. Kirk, Ltd., Greenock.

Lanarkshire.—At Roughmussel site a £70,400 housing scheme to be erected, for which the architect is R. Bradbury, 20, Trongate, Glasgow.

Shotts.—New factory at Shotteskirk-rd., for which the architects are Gavin, Paterson & Son, Cadzow-st., Hamilton.

FUTURE CONSTRUCTION

PUBLIC APPOINTMENTS

Full details of Public Appointments open will be found in the Advertisement pages of this and previous issues.

CONTRACTS OPEN

For some contracts still open but not included in this list see previous issues. Those with an asterisk are advertised in this number. The dates at the heads of paragraphs are those for the submission of tenders; a dagger (†) denotes closing date for applications; the name and address at the end refer to the person from whom particulars may be obtained.

BUILDING

AUGUST 18.

†Ampthill R.D.C.—30 houses at 5 sites. H. Robinson, C., 12, Dunstable-st. Dep. £2 2s.

AUGUST 19.

Lancs. C.C.—(a) 3 pairs of police houses at Orrell-rd., Litherland; (b) alterations to County Police Station, Seaforth. County A., County Offices, Preston. Dep. £2 each job.

†*Wivenhoe U.D.C.—4 pairs of houses at The Avenue. H. Dudley Pawsey, C., Council Offices. Dep. £2 2s.

AUGUST 20.

†*Smethwick C.B. — Reinforced concrete foundations, roadway, etc., for workshop, garage and canteen block at Gas Works, Rabone-la. Gas E. and Manager, Gas Offices, Rabone-la. Dep. £3 3s.

AUGUST 21.

***York T.C.**—4 houses, Alne-terr. City E. Dep. £2.

AUGUST 23.

Acton T.C.—Applications to be put on panel for construction of houses, flats, etc., at South Ruislip. B.E.

Clutton R.D.C.—6 houses with sewer and disposal works at Farmborough. Thomas and Morgan and Partners, 23, Gelliwastad-rd., Pontypridd. Dep. £3 3s.

Daventry R.D.C.—14 houses at 3 sites. H. Bonsor, M.I.Mun.E., S., 44, High-st. Dep. £3 3s.

Herne Bay U.D.C.—10 houses at School-la., Herne. W. W. Smith, M.I.Mun.E., E. & S. Dep. £2 2s.

Kingsbridge R.D.C.—4 pair blocks of houses at West Alvington. H. Parsons, Architect, Council Offices, Manor House, Kingsbridge. Dep. £2 2s.

Macclesfield Boro'.—30 houses, Ivy-rd. estate. Boro' A., 3, Jordangate. Dep. £2 2s.

AUGUST 25.

Birmingham T.C.—Pile and raft foundations, retaining and foundation walls for flats at Hutton estate, Washwood Heath. City E. & S. Dep. £2 2s.

Darlington C.B.—New junior mixed department at Alderman Leach school. Boro' A., Central-bldgs. Dep. £2 2s.

Ellesmere R.D.C.—12 houses with roads and sewers at 3 sites. C., Council Offices, Trimpley Hall, Ellesmere. Dep. £2 2s.

†Isle of Ely C.C.—Detached houses and 1 pair houses at Wisbech. R. D. Robson (A.), County A., County Hall, March, Cambs. Dep. £2 2s.

†*North Riding Standing Joint Committee.—10 lock-up police garages at Northallerton. J. Catchpole (A.), County A., County Hall, Northallerton. Dep. £2 2s. Tenders by September 10.

†*North Riding Standing Joint Committee.—6 police houses at Northallerton. J. Catchpole (A.), County A., County Hall, Northallerton. Dep. £2 2s. Tenders by September 10.

AUGUST 27.

***Burnley C.B.**—Conversion of large house into nursery school. B.E.

Doncaster T.C.—44 houses at Wheatley Park estate. Acting Estates S., 15, South Parade, Doncaster. Dep. £3 3s.

Manchester T.C.—(a) 7 lock-up shops and 8 flats and 7 garages at Greenwood-rd., Northenden, and (b) 7 lock-up shops, 12 flats and 7 garages at Haveley-rd., Circle, Sharston. City A. Dep. £1 1s. each item.

AUGUST 28.

***†Buckingham R.D.C.**—4 houses and other work at Biddesden. Scherrer and Hicks (FF.), 10, Dover-st., London, W.1. Dep. £1 1s.

Chesterfield T.C.—5 pairs of houses at Highfield-rd. B.E. & S., Town Hall. Dep. £2 2s.

Cwmbran U.D.C.—24 houses at Oakfield Park estate. T. J. Price, S. & Waterworks E., Council Offices. Dep. £3 3s.

Llandilo R.D.C.—46 houses at 5 sites. E. & S., Council Offices, Crescent-rd., Llandilo. Dep. £2 2s.

Petworth R.D.C.—6 houses, Sutton. F. J. Hodgson (L.), 2, Chertsey-st., Guildford. Dep. £2 2s.

Rugby R.D.C.—6 pairs of Airey houses at Kings Newnham-la., Church Lawford. S., 24, Warwick-st. Dep. £2 2s.

Tenterden T.C. — 22 houses at Place Farm, Appledore-rd. W. Lynn Thompson (A.), The Ingles, Hawkhurst, Kent. Dep. £2 2s.

AUGUST 30.

Bexhill T.C.—20 houses at Grangecourt-dr., with fencing and drainage works. B.E. & S. Dep. £2 2s.

Caine T.C.—28 houses at Abberd housing (No. 3) scheme. Council Offices, 6, Patford-st. Dep. £2 2s.

Cuckfield R.D.C.—16 dwellings at Copthorne. Contract No. 41. E. & S., Council Offices, Boltro-rd., Haywards Heath. Dep. £2 2s..

***Deal T.C.**—50 houses at Orchard-ave. estate. B.E. and S. Dep. £2 2s.

Ellesmere Port U.D.C.—29 houses at Newnham-dr., Stanney estate. E. & S., Queen-st. Dep. £3 3s.

Frome R.D.C.—8 houses at Nunney. J. Rogers, Architect, Radstock, nr. Bath. Dep. £1 1s. (by cheque payable to R.D.C.).

Llandovery T.C.—8 houses at King's Arms-st. Thomas and Morgan and Partners, 23, Gelliwastad-rd., Pontypridd. Dep. £3 3s.

Northampton C.B.—90 houses at Dallington Fields estate. Boro' A., Guildhall. Dep. £2 2s.

***Shrewsbury T.C.**—60 houses at Crowmoor. B.S. Dep. £2 2s.

***States of Guernsey.**—14 houses at Les Islets Arsenal, St. Peter-in-the-Wood. G. Heggs, States Engineer, States Office, Guernsey. Dep. £1.

Stockton-on-Tees E.C. — Proposed junior school at Ragworth estate, Darlington-la. Boro' A., 124, High-st. Dep. £2 2s.

Southwick U.D.C.—6 flats at Manor Hall-rd. E. A. Coates, E. & S., Town Hall. Dep. £3 3s.

Weymouth and Melcombe Regis T.C.—16 flats at Westhaven estate, Abbotsbury-rd., Weymouth. B.E. & S., 6, Pulteney-bldgs. Dep. £2 2s.

AUGUST 31.

Bournemouth C.B.—16 houses, East-way. Boro' A. Dep. £2 2s.

***East Ham C.B.**—25 houses, Telham-rd. Chief Housing Officer, Town Hall. Dep. £2 2s.

Leeds Regional Hospital Board.—Extensions to boiler house at St. James's Hospital. Kitson, Parrish, Ledgard & Pyman, chartered architects, Lloyds Bank-chbrs., Vicar-la., Leeds. Dep. £2 2s.

***Merton and Morden U.D.C.**—(1) War damage repairs to buildings at Joseph Hood recreation ground; (2) war damage and other repairs to buildings in other open spaces; (3) painting W.I. fencing, etc., in open spaces; (4) repairs, etc., to W.I. and chain link fencing in open spaces. E. & S.

Willenhall U.D.C.—18 houses at Dilloways-la. and 4 houses at Bilston-la. E. & S., Town Hall. Dep. £2 2s

SEPTEMBER 1.

Alcester R.D.C.—32 houses at Bidford-on-Avon and 18 at Studley. Francis B. Andrews & Son, 95, Colmore-row, Birmingham 3. Dep. £2 2s.

Liverpool T.C.—28 houses and 32 flats at Lyme Grove estate. City A. and Director of Housing. Dep. £2 2s.

***Newport (Mon.) C.B.**—Dental surgeries and alterations to existing aural treatment and orthoptic clinic, etc., at Bryngwyn School clinic, Clytha Park. Boro' A., Town Hall. Dep. £2 2s.

Wellington (Salop) U.D.C.—24 houses at Arleston, site B. W. B. Bond, F.R.I.C.S., 3, Newhall-st., Birmingham, 3. Dep. £2 2s.

***†West Sussex C.C.**—3-form Entry Secondary Modern School at Midhurst. F. R. Steele (F.), County A., County Hall, Chichester.

***Willenhall U.D.C.**—50 houses at Beacon Colliery estate. Harvey & Wicks (FF.), 117, Hagley-rd., Edgbaston, Birmingham 16. Dep. £2 2s.

SEPTEMBER 2.

Burgess Hill U.D.C.—18 houses at West Park estate. E. & S., Council Offices, 32, Church-rd. Dep. £2 2s.

Wantage U.D.C. — 4 houses at Wantage. W. G. Stanbrook, A.I.A.A., 26, North Brook-st., Newbury. Dep. £2 2s.

SEPTEMBER 3.

***Canterbury T.C.**—54 houses at Spring-la. site. L. Hugh Wilson (A.), City A. Dep. £2 2s.

This mobile camera tower, of welded tubular steel, was specially built by Scaffolding (Great Britain), Ltd., for the use of newsreel cameramen at the Olympic Games. It stands more than 20 feet high, and is made in three sections, with a total weight of approximately 13 cwt. An interesting feature is the fourth wheel, mounted under the tower's platform, which allows the whole thing to be lowered on to its side for pushing in and out of Wembley Stadium.

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*Farnborough U.D.C.—5 shops with s.c. flats over at Hawley housing scheme. I. C. Jenkins (L.), E. & S., Town Hall. Dep. £3 3s.
*Rowley Regis T.C.—28 houses at Brickhouse Farm estate. B.E. & S. Dep. £2 2s.

SEPTEMBER 4.

Abergavenny R.D.C.—12 houses at Mardy and 6 Airey houses at Grosmont. J. Merton Jones & Sons (L.), St. Mary's-chbrs., Abergavenny. Dep. £2 2s.
*Beds. C.C.—Police house with office at 3 sites. County A., Shire Hall, Bedford. Dep. £2 2s. each house.
*Billericay U.D.C.—(a) 5 pairs of houses at Laindon site, and (b) 5 pairs at Vange site. S., Council Offices. Dep. £2 2s.
*Broadstairs and St. Peter's U.D.C.—15 houses at Westover-rd. estate. E. & S. Dep. £2 2s.
*Chippenham T.C.—Additional sanitary accommodation, etc., at town hall and Neeld Hall. B.E., The Old Palace, 10, Market-pl. Dep. £2 2s.
Staveley U.D.C.—30 houses at Inkersall Green estate. E. & S. Dep. £2 2s.

SEPTEMBER 6.

Brighton C.B.—56 bungalows at Hollingbury estate. B.E. & S., 26-30, King's-rd. Dep. £2 2s. (payable to Boro' Treas.).
*Derby C.B.—Conversion of 218, Osmaston-rd. into day and residential nursery. Thos. W. East (F.), Boro' A., Council House. Dep. £2 2s.
Finchley B.C.—102 flats and 59 houses in 4 contracts on various sites. Boro' Housing and Town Planning Dept., The Avenue, Regent's Park-rd., N.3. Dep. £3 3s. each contract.
*Harrow U.D.C.—Reconstruction at 36, Milton-rd., Wealdstone. E. & S. Dep. £2 2s.
*Hitchin U.D.C.—40 houses at Purwell-la. estate. S., Old Town Hall, Hitchin. Dep. £2 2s.
Lincoln T.C.—82 houses at Boultham Moor North estate. Housing A., Stamp End, Lincoln. Dep. £3 3s.
Pewsey R.D.C.—4 houses at Everleigh with sewers. E. & S. Dep. £2 2s.
*Portland U.D.C.—14 houses at Pound Piece, Weston. Crickmay & Sons, 23, St. Thomas-st., Weymouth. Dep. £2 2s.
Warwickshire C.C. — List of contractors for maintenance and new building work. C. H. Elkins, F.R.I.B.A., County Architect, Warwick.

SEPTEMBER 8.

Blaby R.D.C.—32 houses at 4 sites. E. & S., Council Offices, Narborough, nr. Leicester. Dep. £2 2s.
*East Ham C.B.—Community Centre, Eisenhower-drive, Beckton. B.E. Dep. £2 2s.
*Hampshire C.C.—Conversion of Basingstoke Old Queen Mary's school into junior technical school. S. Low, County A., The Castle, Winchester. Dep. £1 1s.

SEPTEMBER 9.

Milford Haven U.D.C.—Block of 3 shops and 2 flats at junction of Pill-la. and Pill-rd. E. & S., Town Hall. Dep. £2 2s.

SEPTEMBER 10.

*Hampshire C.C.—Alterations and adaptations to certain buildings at Fareham Isolation Hospital for Primary school. S. Low, County A., The Castle, Winchester. Dep. £1 1s.
*Strood R.D.C.—6 houses and 4 flats at High Halstow, 8 flats at Hoo and 2 houses at Lower Stoke. E. & S., Council Offices, Frindsbury-hill, Strood. Dep. £5 5s.

SEPTEMBER 13.

*Weymouth and Melcombe Regis T.C.—1 pair of cottages at Radipole-la., Weymouth. Dep. £2 2s.

SEPTEMBER 15.

*Huntingdon R.D.C.—3 pairs of houses at Upwood. E. B. Parkinson (L.), Montagu House. Dep. £2 2s.

SEPTEMBER 17.

Chester T.C.—Necessary building work for completion of County Secondary Modern School, Handbridge, contract No. 3. City E. & S. Dep. £2 2s.

SEPTEMBER 25.

*Gravesend T.C.—50 dwellings at Christian Fields-ave., nr. King's Farm. J. Garrett Bennett (F.), Boro' A., Woodville-terr. Dep. £5 5s.

OCTOBER 4.

*St. Neots U.D.C.—Compressor house, spun-iron pumping main, etc., at Huntingdon-rd. John Taylor & Sons, Artillery House, Artillery-row, S.W.1. Dep. £5 (cheque only).

NO DATE.

*Guildford T.C.—6 shops with flats over and 34 houses at Bellfields and Park Barn estates. B.E. & S. Dep. £2 2s.
*Shrewsbury T.C.—8 flats at Long-row, Dither ington. B.S. Dep. £2 2s.

PAINTING, ELECTRIC LIGHTING, MATERIALS, ETC.

AUGUST 27.

Bromley T.C. — External decorations at 149 bungalows at Turpington-la. and Crown-la. estates. B.E. Dep. £1.

NO DATE.

*Gloucester.—Horton-rd. and Coney-hill Hospitals: (a) Painting and redecorating of outside Crescent at the Horton-rd. Hospital; (b) resurfacing of main drives at Coney Hill Hospital. Secretary.

ROADS, SEWERAGE AND WATER WORKS

AUGUST 23.

Blaenavon U.D.C.—9¾ miles of stoneware pipe sewers 6 in. and 9 in. dia., etc. Contract No. 1. John Taylor & Sons, Artillery House, Artillery-row, S.W.1. Dep. £5 (cheque only).
Deal T.C.—Preparation of Orchard-ave. site. B.E. & S. Dep. £2 2s.
Ilford T.C.—Road completion works at Felstead estate (Part 1). B.E. & S. Dep. £2 2s.
Langport R.D.C.—Sewerage extensions at Somerton. W. Herbert Bateman & Partners, Chesterfield House, Batheaston, Bath. Dep. £5.
Peterborough T.C.—Laying of approx. 900 yds. of 12-in. and 2,700 yds. of 15-in. iron pipe water mains, etc. City E. Dep. £2.

AUGUST 24.

Ilford T.C.—Roads and sewers at Barley-la. site, Abercorn-gdns. B.E. & S. Dep. £2 2s.

AUGUST 27.

Middlesex C.C.—Road, footways, etc., at Marsh-la., Stanmore. County E., 10, Great George-st., S.W.1. Dep. £3 3s.
Stone R.D.C.—Extensions to Ecclesall water supply. A. H. S. Waters, M.I.C.E., 25, Temple-row, Birmingham 2.
Wolverhampton C.B.—Construction of roads at Rake Gate Farm estate. B.E. Dep. £2 2s.

AUGUST 30.

Cowes U.D.C.—Reconstruction of Yarborough-rd. E. & S. Dep. £2 2s.
Liverpool Corporation Waterworks.—1,400 yds. of 25 in. dia. asbestos cement pipes at Chorley. Water E., 55, Dale-st. Dep. £5 5s.

AUGUST 31.

West Kesteven R.D.C.—3,000 yds. of 6 in. and 1,300 yds. of 3 in. dia. iron pipe water mains at Harlaxton. Elliott & Brown, Stanley House, Pelham-rd., Nottingham.

SEPTEMBER 4.

Chapel-en-le-Frith R.D.C.—700 yds. of 3 in. water main, etc., at Wormhill. Brady & Partington, Market-st., Chapel-en-le-Frith. Dep. £2.

SEPTEMBER 6.

*Alton R.D.C.—Site works at Bentworth, Chawton and Four Marks. C., Council Offices, Barten-end, Alton. Dep. £2 2s.
Worthing R.D.C.—Roadworks at Roundstone-dr., East Preston. E. & S. Dep. £2 2s.

SEPTEMBER 7.

Market Harborough R.D.C.—Roads and sewers at Kibworth Beauchamp site. Pick, Everard, Keay & Gimson, 6, Millstone-la., Leicester. Dep. £2 2s.

SEPTEMBER 10.

Devizes R.D.C.—Laying of cast-iron water main at Nursteed and asbestos-cement pressure pipe at various parishes. G. E. Williams, Browfort, Devizes.

SEPTEMBER 11.

Bakewell R.D.C.—Construction of water mains, etc., in various parishes. Brady & Partington, Market-st., Chapel-en-le-Frith. Dep. £5.

SEPTEMBER 13.

Cosford R.D.C.—5,000 yds. of 7 in. and 9 in. dia. stoneware sewers, etc., and sewage disposal works, pumping station, etc. Lemon & Blizard, 25, Victoria-st., S.W.1. Dep. £3 3s.

SEPTEMBER 14.

Bedworth U.D.C.—Sewerage works at Nuneaton-rd. and Weston-la., Bulkington. E. & S 134, Newtown-rd. Dep. £2.

SEPTEMBER 28.

Marshland R.D.C.—Provision and laying of 2,380 lin. yds. of 6 in. dia., 10,510 lin. yds. of 4 in. dia. and 13,850 lin. yds. of 3 in. dia. asbestos cement water mains, etc., in various parishes. Rofe & Raffety, 3, Victoria-st., S.W.1. Dep. £2 2s.

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GENERAL BUILDING WORK

(LONDON)

Bromley.—Crematorium.—To be erected by B.C. Architect, J. L. Seaton Dahl (F.).
Coulsdon and Purley.—10 houses to be erected at Stanley-rd., Old Coulsdon, by H. C. Plater; 14 houses at Ingham-rd., Selsdon, by T. H. Browning & Co., Ltd., 10 houses at Hazelwood-gr. and Leighton-gdns., Sanderstead, by W. J. Prewing, Ltd.
Dagenham.—Flats.—B.C. seeking permission of M.H. to erect 28 flats at Blackburne estate.
Dagenham.—Housing.—M.H. authorised B.C. to erect 28 houses at Dagenham-rd. estate.
Edmonton.—Rebuilding.—Of 7-9, Doncaster-rd. Elsom and Pearlman, architects, 44, Catherine-pl., S.W.1.
Elstree.—Houses.—M.H. allocated 180 houses to R.D.C. to June, 1949.
Enfield.—Housing.—B.C. considering plans for erection of 20 houses, Lavender-hill. Brian L. Sutcliffe & Partners, architects, 5, Manchester-sq., W.1.
Golders Green.—Alterations.—And improvements contemplated at branch premises, 883, Finchley-rd. by Premises Dept., Barclays Bank, Ltd., 42, Gracechurch-st., E.C.3.
Leytonstone.—Shops, Hall and Offices.—Montague Burton, Ltd., Hudson-rd. Mills, Leeds, have in view new shops, billiards hall and offices, 669-672, Leytonstone High-rd., E.11, and showrooms, billiards hall and flat, 334-336, Lea Bridge-rd., E.10. Company's staff architect, N. Martin (A.).
New Oxford Street.—Offices.—Licence for over £90,000 issued for proposed office building, New Oxford-st., Bloomsbury-way and Bury-pl., W.C.1. Plans prepared by Lewis Soloman & Son, 21, Bloomsbury-way.
Piccadilly.—Alterations.—And improvements to showroom premises at No. 202, for Simpsons, Ltd. Plans prepared by Burnett & Partners (FF.), 12, Bloomsbury-sq., W.C.1.
St. John's Wood-rd.—Flats.—Plans being prepared for flats. Easton and Robertson (FF.), architects, 54, Bedford-sq., W.C.1.
Southgate.—Rebuilding.—Plans approved for rebuilding 8-9, High-st. F. Ferrier Tomlin, architect, 195, High-rd., Wood Green, N.22.
South Kensington.—Additions.—Governors of Imperial College for Science and Technology considering plans for extensions and additions at Prince Consort-rd. Thomas Worthington & Sons, cons. architects, 178, Oxford-rd., Manchester. Ernest R. Babbs & Sons, quantity surveyors, 40, St. James's-pl., S.W.1.
Walthamstow. — Schools. — E.C. considering plans for new Home and Manor Farm junior and infants' schools for erection in 1949.
Walthamstow.—Flats.—M.H. agreed to erection of 36 flats at Forest Hall, Oak-hill, by B.C.
Wembley.—Housing.—M.H. confirmed compulsory purchase order for B.C.'s acquisition of land at The Avenue for housing purposes.
Wembley.—Housing.—B.C. to discuss with M.H. possibility of proceeding with 72 houses at Fryent estate, 28 aged persons' dwellings and 64 maisonettes at The Mall estate and 102 flats at Keneric-court.
Wembley.—School.—M.H. approved erection of county primary school at Mount Stewart-ave.

(PROVINCIAL)

Ashton-under-Lyne.—Lancs. E.C. propose day nursery at Wellington-rd.
Bangor, North Wales.—T.C. received allocation of 20 houses from M.H.
Bath.—City C. to acquire 1 and 2, Seymour-

st. for development.—City C. to redevelop area in Walcot-st.—City C. preparing scheme for redevelopment of Calton-rd. and Holloway area.—City C. to erect 250 Cornish unit houses at Weston and Twerton.

Bentham.—Governors of High School propose assembly hall, canteen and workshops.

Birkenhead.—B.C. contemplate erection of some 700-800 houses at Woodchurch estate. Architect, Herbert J. Rowse (F.), Martins Bank-bldgs., Water-st., L'pool. Cons. engineers, A. P. I. Cotterell & Sons, 54, Victoria-st., S.W.1. Quantity surveyors, Furber & Sons, Cunard-bldgs., L'pool.

Birkenhead.—E.C. forwarded to M.O.E. plans for junior and infants' schools, for St. Werburgh's R.C. Church. Edmund Kirby & Sons, architects, 5, Cook-st., L'pool.

Birmingham.—City C. to offer site at junction of Hill-st. and Smallbrook-st. to Mr. Emile Littler for erection of theatre.

Blackpool.—Alex. Holt (A.), 177, Victoria-rd., Thornton-Cleveleys, is architect for sports stadium and restaurant at Stanley Park.

Bournemouth.—B.C. issued instructions for preparation of quantities for proposed public health laboratories. Plans by Boro. A.

Bredbury.—Cheshire C.C. propose police houses at Brookfield-ave.

Bromsgrove.—U.D.C. approved extensions to Bordesley Hall for British Cast Iron Research Assn., Ltd.

Bury.—T.C. approved:—4 houses at Elton Vale-rd., for H. Barber; laboratory to print-works, Bolthoit, Horridge & Cornwall, Ltd.; works canteen at Hudcar-la. and extensions to works at Bridge-st., for Bury Felt Manufacturing Co., Ltd.; garage at Croft-st., for Fred Smith & Sons, haulage contractors, 8, Butcher-la.

Caernarvon.—T.C. seeking sanction for loan of £20,000 for civic theatre.

Caernarvonshire.—C.C. propose police houses at Strand-st. and Ffriddoedd-rd., Bangor, and at Tyn-y-Groes, Conway.

Chester.—E.C. propose open-air school for 40 children at Blacon.

Chinley.—E.C. propose High Peak secondary school.

Chorley.—R.D.C. propose 22 additional houses at Adlington. T.C. propose 20 bungalows for aged persons at Highfield.

Coventry.—T.C. propose health centre at Binley-rd. and Hipswell-highway, 88 houses at site at Nuffield-rd. and Mulberry-rd.

Fishguard.—Fishguard and Goodwick R.D.C. to build additional 50 houses at Penwallis. Plans by T. Alwyn Lloyd (F.), 6, Cathedral-rd., Cardiff.

Halesowen.—T.C. propose health centre and 2 subsidiary centres.

Hemel Hempstead.—B.C. agreed to new water scheme costing £1,000,000. Edward Sandeman, Kennard & Partners, cons. engineers, 1, Victoria-st., S.W.1.

Hindley.—U.D.C. propose 28 houses and shopping centre at Castle-hill.

Jarrow.—Land at Dunn School site reserved by Durham County E.C. for school buildings. G. R. Clayton, Court-la., Durham, is C.A.

Keighley.—T.C. approved layout and house plans for 34 houses at Moor View-gr. for D. O'Connell, builder, Spring-ave., Long Lee.

Kidderminster.—Groves & Co., propose shop and showroom at Mill-st. Plans by Pritchard, Godwin and Clist, Bank-chbrs.

Killamarsh.—Derby. E.C. propose dining-room and kitchen at Endowed Schools.

Lichfield.—R.D.C. propose 25 houses at Brindley housing estate.

Limehurst.—Lancs. E.C. propose county primary school at Limeside estate in arrangement with Oldham T.C.

Lincoln. — Governors of Lincoln Training College propose residential hall for 90 students and additional lecture rooms. Watkins & Coombes, architects, High-st.

Macclesfield.—Cheshire E.C. propose secondary school at 17-acre site at Ryles Park-rd.

Manchester.—T.C. approved:—Alterations to office to chemical works at Clayton-la., Clayton, for Anchor Chemical Co., Ltd. (Cruickshank & Seward (F.), 16, Princess-st.).; alterations to boiler house, cafe and bar, Belle Vue-gdns., Hyde-rd., Gorton, for Belle Vue (Manchester), Ltd. (Wm. Kay, works manager); alterations and additions to works at Princess-st. for Brown & Tawse, Ltd. (Drury & Gomersall (L.), 11, Imperial-bldgs., 15, Oxford-rd.); additions to works at Buckley-st., Higher Openshaw, for Ferguson, Pailin, Ltd.; alterations to "Seven Stars" restaurant, 10b, Oxford-st., for T. Mackonnan (Drury & Gomersall (L.), 15, Oxford-rd.; kitchen and dining-room at Mill-st., Bradford, for E.C. (L. C. Howitt (F.), C.A.); additions to works at Vesta-st., Ancoats, for C. Whatmough, Ltd. (J. Paley Parrish (F.), 30, Broad-rd., Sale, Cheshire); alterations and additions to offices at works, Potato Wharf, Liverpool-rd., for General Asphalte Co., Ltd. (E. S. England (A.), 12, Clegg-st., Oldham); alterations to shop and house, 414, Victoria-ave., Blackley, for Gordon's Bakeries, Ltd. (W. Telford Gunson & Son (F.), 10, Marsden-st.); dining-room and kitchen at Alma Park Municipal School, Errwood-rd., Levenshulme, for E.C. (L. C. Howitt (F.), C.A. —Housing Cttee. applying to M.H. for sanction to borrow £29,428 for shops, flats and garages at Thornton-st., Collyhurst (A. Mackenzie (L.), housing director, Town Hall).—Council of the Y.M.C.A., 56, Peter-st., propose conversion of building at Trafford Park into hostel at £8,000 (H. S. Fairhurst & Son (FF.), Chancery-chbrs., 55, Brown-st.).

Matlock.—U.D.C. propose bus station adjoining Bakewell-rd. U.D.C. received approval of M.H. for 34 houses at Darley Dale.

Newcastle (Staffs.). — T.C. approved:—Extensions to garage, Four-la. Ends, for Talke Garage, Ltd., A. P. Lovatt, architect, 6, King-st., Newcastle, Staffs; extensions to St. Wulstan's Church, Dimsdale-parade, Wolstanton, for Rev. T. V. Bagnall, P.P.

Newcastle (Staffs).—T.C. approved:—Additions to New Inn, Knutton-la., for Parker's Burslem Brewery Co., Ltd. (R. Scrivener & Sons (F.), Howard-pl., Hanley, Stoke-on-Trent); alterations at 41, Liverpool-rd. for J. S. Trueman (Hollins, Jones & Oldacre (F. & AA.), Lloyds Bank-bldgs); S.D. houses, St. George's-ave. for A. Gibbs (A. P. Lovatt, architect, 6, King-st. Newcastle, Staffs); The Crossways for C. Baker (A Cotton & Son, architects, Piccadilly, Stoke-on-Trent); alterations to Conservative Club, Merrial-st., for Building Cttee (Hollins, Jones & Oldacre (F. & A.), Lloyds Bank-bldgs.); additions to works at Liverpool-rd. for Jos. Jones (N.S.), Ltd. (Hollins, Jones & Oldacre (F.), Lloyds Bank-bldgs.).—T.C. propose additional houses for miners at Silverdale.—E.C. propose schools at Bradwell Wood and Wolstanton and branch libraries at Bradwell estate and at High-st., Wolstanton.—T.C. propose shopping centre at Bradwell estate—Silverdale Equitable Co-operative Society, Ltd., propose shop at Knutton.—T.C. propose ambulance depot in Thistleberry-ave.

Northumberland.—C.C. seeking sanction to include following in 1949 building programme: New schools at Blyth, Wallsend, Wooler, Ponteland, Longbenton, Shiremoor, Monkseaton, Haltwhistle, Newburn, Hexham, Lowick, Bellingham, Ashington, Whitley Bay and Lynemouth. Plans by C.A., County Hall, Newcastle-on-Tyne.

Nyasaland. — Nyasaland Railways, Ltd., Thames House, Queen-st.-pl., Cheapside, E.C.4, considering schemes for rebuilding large railway depôt and workshops at Limbe. Livesey and Henderson, cons. engineers, 14, South-pl., Finsbury-circus, E.C.2. H. E. Whitehouse, M.I.C.E., chief engineer.

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EXPORT ENQUIRIES INVITED

Ogwen.—R.D.C. received approval for 28 "Airey"-type houses at Tregarth and 16 trad. houses at Penrhos.

Oldham.—T.C. approved:—Additions to Primrose Mill, Primrose-bank, for Taylor Bros. (Fabrics), Ltd.; alterations and additions at Staffs. House, High-st., for J. Bailey (Oldham), Ltd.; additions for Corp. Arms Hotel, 151, Manchester-st., for Manchester Brewery Co., Ltd., Woodside Brewery, Eccles New-rd., Salford 5; extensions to factory at Bloom-st., for J. Rouse, Ltd. E.C. propose new county college at £450,000 and 2 branch colleges at £150,000 each.

Oxford.—E.C. to seek sanction for start on proposed secondary technical college. E. G. Chandler (F.), Education Arch., Town Hall, Oxford.

Plymouth.—M.O.E. considering plans for proposed £70,600 Ernesettle primary school, for E.C. E. G. Catchpole (F.), architect, Weston Lodge, Seymour-rd., Plymouth.

Preston.—R.D.C. propose 29 houses for agricultural workers at Barton, Longton, New Longton, Farington, Hutton, Woodplumpton and Lea. T.C. propose neighbourhood unit for 1,000 houses at Brookfield.

Rainford.—U.D.C. propose 60 houses, 4 bungalows and 16 2-storey flats at Bank Villas site.

Runcorn.—R.D.C. propose houses at Knutsford-rd., Antrobus. R.D.C. to apply to M.H. for sanction to borrow £16,700 for 12 "Airey" houses at Manley, Norley and Great Budworth. Propose additional houses at 31-acre site at Cobb's Quarry, Frodsham.

St. Helens.—M.H. approved allocation of 106 houses at East Lancs.-rd. site.

Salford.—E.C. propose new school for Broughton high school.

Scarborough.—Holbeck Court Estates propose flats at Wheateroft-ave., Filey-rd., for Wilkinson & Smith (L.), Martins Bank-bldgs., 96, Westborough.

Scunthorpe.—T.C. received approval of M.H. for 50 houses, 40 cottage flats and 16 bungalows for aged people.

Sheffield.—Dale's Ices, Ltd., propose ice-cream factory at Thomas-la. and Thomas-st. Wm. Gunstone & Sons, Ltd., propose additions to works at Low-st.

Skelmersdale.—U.D.C. to apply to M.H. for sanction to borrow £24,228 for 20 houses at Windrow's-la.

Small Heath.—Rev. F. H. Drinkwater, P.P., Church of the Holy Family, Coventry-rd., proposes primary school at £25,000. Peacock & Bewlay (FF.), 83, Colmore-row, Birmingham 3.

Stone.—R.D.C. propose 56 houses at Barlaston, Fulford, Sandon, Chebsey, Saverley Green, Swynnerton and Oulton.

Stretford.—T.C. approved erection of 16 houses at Clyne-st. and Railway-rd. for Lancs County Constabulary. T.C. to erect 208 houses at Mosspark site.

Swindon.—Board of Management of Maternity Hospital propose additional storey for wards, operating theatre suite, staff quarters, etc., costing £25,000. Plans by J. L. Morgan (A.), Town Hall, Swindon.

Tarvin.—R.D.C. propose:—Houses at Commonla. and Flat-la., Kelsall; 28 houses at Malpas, Keysbrook, Huxley and Tilston.

Towcester.—R.D.C. propose 32 houses at Pattishall, Potterspury, Wappenham, Weston and Weedon.

Urmston.—U.D.C. to develop 13-acre site for houses at Winchester-rd.

Uttoxeter.—R.D.C. appointed W. Dobson Chapman & Partners (L.), Jordangate, Macclesfield, for layout and house plans for housing schemes.

Wigan.—Col. E. Gee (F.) (Quiggin & Gee), North House, 17, North John-st., Liverpool 2, is architect for St. Anne's Church, Beech-hill, for Liverpool Reorganisation Cttee. and P.C. of St. Anne's Church.—E.C. propose new infants' school and school clinic at central site and new health centre at Norley Hall estate.

TENDERS

* Denotes *accepted.*
† Denotes *provisionally accepted.*
‡ Denotes *recommended for acceptance.*
§ Denotes *accepted subject to modification.*
¶ Denotes *accepted by H.M. Government departments.*

Accrington.—Extensions at Broad Oak Printworks, for The Calico Printers' Association, Ltd., St. James'-bldgs., Oxford-st., Manchester 1. Plans by Architects' Dept.: *J. R. Holt, Ltd., Bacup-rd., Saw Mills, Waterfoot, nr. Bacup, Rossendale.

Ashton-under-Lyne.—Extensions to works, Dean-st. and Wellington-st., for J. C. Carlson, Ltd. Drury & Gomersall (L.), architects, 7, Imperial-bldgs., Oxford-rd., Manchester 1: *E. B. Jones & Rawlinson, Ltd., Leaf-sq., Pendleton, Salford 6.

Barton-on-Humber.—20 houses at Tofts-rd. estate, for U.D.C. J. M. Bott, C.: *H. Foster, 103, West Acridge, Barton-on-Humber, £23,400.

Bath.—250 dwellings at Weston and Twerton, for T.C.: ‡Sellick/Nichols & Co., Ltd., £297,761.

Bath.—Phase 11 of conversion scheme for training college at Newton Park, for E.C. A. J. Taylor & Partners, architects, 4, Bridge-st., Bath: *Bath Builders, Ltd., Bath.

Blackwell.—32 houses at Rowthorn-la., Glapwell, Derbys., for R.D.C. S. Wells, Architect and Housing Superintendent, 100, Chesterfield-rd., South Mansfield, Notts. Quantities by Gleeds: *Wright Bros., 48, Mason-st., Sutton-in-Ashfield.

Blackwell.—4 houses for R.D.C. at Hill-crest, Shirebrook, Derbyshire. S. Wells, architect, "Dale Close," 100, Chesterfield-rd. South, Mansfield, Notts. Quantities by Gleeds, Nottingham. ‡Wright Bros., 48, Mason-st., Sutton-in-Ashfield. 8 at Albine-rd., Langwith Junction, Derbyshire. ‡C. A. Warden, 21, Derby-rd., Annesley, Notts.

Bridge of Don.—New Aberdeenshire school. G. Watt & Stewart, architects, Union-st., Aberdeen. Contractors: A. Law, building works, etc., Newmachar; Haden & Sons, sanitary engineering work, etc., Aberdeen; Barnet & Low, joinery and allied works, Aberdeen.

Brighouse.—32 houses at Stoney-la. estate for T.C.: ‡Harlow & Milner, Ltd., Wakefield. £45,139

Bridgwater.—100 Cornish unit houses at Sydenham estate, for T.C.: *Selleck Nicholls & Co., Ltd., St. Austell, £140,966 (subject to M.H. approval.)

Brighton.—52 houses in three contracts at Hollingbury estate, for C.B. D. J. Howe, M.I.C.E., M.Inst.M. & Cy.E., B.E. & S. Section 4E—16 houses: *W. H. Soper, West Way, Hove 4, £23,342; section 5A—22 houses: *Saunders (Contractors), Ltd., London-rd., Burgess Hill, Sussex, £32,297; section 5B—14 houses: *Maguire (Contractors), Ltd., Edith-gr., Chelsea, S.W.10, £20,649.

Bury.—Four shops and houses (combined) at Brandlesholme No. 2 housing site, for T.C. J. Chadwick, M.B.E., A.M.Inst.C.E., B.E., Municipal-bldgs.: *Direct Labour Dept., Bury Corporation, £8,120.

Canterbury.—22 houses at Spring-la., Type 3C3, for T.C. L. Hugh Wilson (A.), A.M.T.P.I., City A., Municipal-bldgs. Quantities by Widnell & Trollope, Broadway-court, Broadway, London, S.W.1: *Ringmer Building Works, Ltd., Lewes, Sussex, £26,513.

Canterbury.—Four temporary workshop blocks at Technical College, Barton Court, for T.C. L. Hugh Wilson (A.), A.M.T.P.I., City A. Quantities by Widnell & Trollope, Broadway-court, Broadway, London, S.W.1: *Ringmer Building Works, Ltd., Lewes, Sussex, £9,140.

Caterham and Warlingham.—4 houses at Coulsdon-rd. site for U.D.C.: ‡G. W. Hitchcox, 57, High-st., Caterham. £5,662.

Caterham and Warlingham.—8 flats and 6 houses at Gresham-ave. for U.D.C.: ‡Walter Smith & Partners, 562, Limpsfield-rd., Warlingham. £14,000.

Coulsdon and Purley.—Houses for U.D.C., 14 at Ingham-rd.: ‡T. H. Browning & Co., Ltd., £20,422; 10 at Hazelwood-gr. and Leightongdns., Sanderstead: ‡W. J. Frewing, Ltd., £13,815; 10 at Coulsdon-rd.: ‡C. Plater, £14,061.

Croydon.—Proposed Spring Park Primary school, for E.C. C. T. Ayerst (A.), School Architect, Town Hall: *E. H. Smith (Croydon), Ltd., 48, Wellesley-rd., Croydon; proposed Stroud Green Secondary school, for E.C. T. Graham Crump (F.), 43, George-st., Croydon: *Higgs & Hill, Ltd., Crown Works, South Lambeth-rd., S.W.8. Part 1 and 2.

Darlington.—Kitchens and dining-halls (two separate schemes) at Eastbourne Secondary school, for C.B. Boro' A., Central-bldgs., Darlington: *Edgar Lawson, Ltd., 10, Woodland-rd., Darlington, Co. Durham—(a) £10,124; (b) £8,500.

Darlington.—10 houses at Nickstream-la. site, for C.B. E. A. Tornbohm (A.), Boro' A.: *Wm. Dickinson, Parkside, Darlington, £13,720.

Dartford.—Extensions to premises at Princess-rd. for Abwood Tool & Engineering Co., Ltd. F. W. Pamplin, architect, 57, Sherwood-way, West Wickham: *H. Friday & Sons, Ltd., Northend Works, Erith, Kent.

Eastbourne.—Conversion of premises into furniture depository, at Willowfield-rd., for Stephen Bindon, Ltd., 34-46, Pevensey-rd., Eastbourne. John Clarke & Son, architects, 95, Terminus-rd., Eastbourne: *W. Llewellyn & Sons, Ltd., Cornfield-ter., Eastbourne.

Eccles.—44 houses at Swanage-rd. and Peel Green-rd., Patricroft, for T.C. T. Elce, M.Inst.C.E., B.E.: *J. J. & J. Massey, Swinton, Manchester. £54,115.

Farnborough.—Electrical installation in 200 houses: *Alpha Manufacturing & Electrical Co., Ltd., 21, Cedars-rd., Clapham, London, S.W.4.

Guildford.—36 houses at Bellfields estate, for B.C. C. H. Causey, B.Sc., A.M.Inst.C.E., M.Inst.Mun.E. Quantities by F. W. Norris, A.R.I.C.S.: *W. H. Gaze & Sons, High-st., Kingston-on-Thames, £45,253 (16 pairs); *W. W. Harris, 141, Woodham-la., New Haw, Weybridge. £5,661 (one block of four houses).

Gwyrfai.—Houses for R.D.C. D. H. Roberts (L.), Cwellyn, Caernarvon. 16 at Cesarea: *R. I. Roberts, Bron Eifion, Upper Llandwrog; 12 at Clynnog: *Arthur Salisbury, 59, Arvonter., Caernarvon; eight at Waenfawr: *Evans Partners, Pentraeth, Anglesey.

Hastings.—Reconstruction as shops, etc., of 71, 72 and 73, George-st., for C. A. Robinson. F. Gordon Watford, architect, 35, Amherst-rd., Hastings: *H. Hills, Middle-st., Hastings.

Heaner.—22 houses at Marlborough Farm estate, for U.D.C. R. Archer, S.: *F. Sissons & Sons, Ltd., Cromford-rd., Langley Mill, Nottingham.

Holborn.—Reinstatement of office building at 34, Ely-pl. Peter Caspari, architect, 7, Abercorn Mews, Violet Hill, Hampstead, N.W.: *Macbeth & Hurley, 299, Eastern-av., Ilford.

Hull.—Extensions to printing works, Alfred Gelder-st., for A. E. Jackson & Co., Ltd. Blakemore & Sykes (A.), Ruskin-chbrs., Scale-la.: *Robinson & Sawdon, Ltd., 96, Alexandra-rd., Hull.

Kendal.—18 houses on Sandylands, for T.C. J. Barnfather, A.M.Inst.Mun.E., B.E. & S.: *W. H. Ainsworth & Co., 14, Mintsfeet-rd., Kendal.

Kesteven.—Work on teachers' training college at Stoke Rochford, for C.C.:—Building work: *B. Pumfrey, Ltd., £29,741; electrical work: *C. Saunders, £7,156; heating and engineering work: *A. E. Sprigg & Co., £12,006 (subject to M. of E. approval).

Leyton.—Rebuilding houses, etc., 51-55, and 61, Forest-dr. West, for W.D.C. A. J. Fowles (F.), 7, Burlescoombe-rd., Thorpe Bay, Essex: *Kind & Co., 564, High-rd., E.11.

London.—Repairs, alterations, etc., at Harwood House, Hanover-sq. C. W. Glover & Partners, architects, 54, Victoria-st., S.W.1: *T. Rider & Son, Ltd., 181, Union st., Southwark, S.E.1.

¶London (Air Ministry).—New contracts to value of £500 or over for week ended July 31:—Electrical work: W. T. Parker, Burton-on-Trent; repairs to runways, etc.; Wm. Tawse, Ltd., Aberdeen; surfacing roads: W. G. Turriff, Ltd., Leamington Spa, Warwicks; reconditioning heating plant: Thos. Hill & Sons, Ltd., Bradford; heating installation: Comyn Ching & Co., Ltd., London, W.C.2; general maintenance works: C. R. Cray, Keyford, Frome; building work: M. J. Gleeson, Ltd., North Cheam, Surrey; H. J. & A. Wright, Ltd., Great Missenden, Bucks; Arbro, Ltd., London, S.E.4; re-erection of timber huts, A. M. Griffiths & Sons, Ltd., Wolverhampton.

London (Air Ministry).—Contracts to value of £500 or over for week ended August 7:—*Repairs to hangar doors*: Kerridge (Cambridge), Ltd., Cambridge. *Heating installation work*: Comyn Ching & Co. (London), Ltd., London, W.C.2; Wm. Freer, Ltd., London, W.C.1; Johnson Burton & Theobald, Ltd., Norwich. *Surfacing work*: The General Asphalte Co., Ltd., London, S.W.1. *Building work*: John Mason, Ltd., London, S.W.1.

¶London (M.O.W.).—Contracts placed by M.O.W. during week ended July 31:—*London*: Telephone Exchange, Bayswater. External and internal painting, Sykes & Son, 10, Essex-st., W.C.2; Government Buildings, Whitehall (Southern Building), Internal cleaning, F. Troy & Co., Ltd., 131, Gt. Suffolk-st., S.E.1; C.M.E. Office, Royal Victoria Dock, London, E. Standard hut, etc., W. J. Cearns, Ltd., Carpenters-rd., Stratford, E.15. *Banffshire*: Portsay J. S. School, Temporary classrooms, James Leith, Jun., 127, Causeway-end, Aberdeen; Ordiquhill Jun. School, Temporary classrooms, James Leith, Jun., 127, Causeway-end, Aberdeen. *Berwickshire*: Coldstream J.S. School, Temp. classroom, central kitchen, canteen, dining-room and scullery, A. Bulman, Ltd., 14, Coal Market, Kelso. *Caithness-shire*: Wick Post Office and Wireless Station, Caithness. Extension to existing building, J. & W. Miller & Sons, Angle Park Works, Wick. *Herts*: Head Post Office, Hertford. Alterations and additions, Globe Construction, Ltd., Beechwood-rise, Watford, Herts. *Kent*: 5, 6 and 7, New-rd., Rochester-rd., Gravesend, Adapts., repairs and decorations for I.R.O., H. Godsell, 133, Chatham-hill, Chatham; St. John's R.C. School, Rochester-rd., Gravesend, Temp. school building, F. Parham, Ltd., 1a, Eva-rd., Gillingham. *Lanarkshire*: Drumoyne Elementary School, Glasgow, Temp. classrooms, Cowiesons, Ltd., 3, Charles-st., Glasgow; E.V.W. Hostel, Thankerton, Adaptations, J. Shirlaw, 16, Market-rd., Carluke; Scientific & Industrial Research Station, Thorntonhall, E. Kilbride, Adaptations, Hugh Broadley, Ltd., 8, Gourock-st., Glasgow. *Staffs*: "Woodthorne," Wergs Hall, Tettenhall, Adaptations, M. A. Boswell, School-st., Wolverhampton. *Warwickshire*: Southam School, Temp. school building, C. T. Adams, Ltd., 69, Temple-st., Rugby. *Yorks*: Hall-la. School, Armley, Leeds, Central kitchen, Matthews & Son, Ltd., 11, Railway-st., Leeds; Modern School, Skircoat-rd., Halifax, School kitchen and dining-room, H. Baxendale & Sons, Shay-la., Ovenden, Halifax; Cockburn High School, Burton House, Leeds, School kitchen & dining-room, Matthews & Son, Ltd., 11, Railway-st., Leeds.

¶London (War Dept.).—Works contracts placed by War Dept. for week ended July 31:—*Midlothian*: Building work, James Miller & Partners, Ltd., Edinburgh. *Perthshire*: Road work, Scottish Tarmacadam & Asphalte Co., Ltd., Glasgow. *Yorks*: Building work, Wm. Birch & Son, Ltd., York; Painting work, Arundel (Contractors), Ltd., Bradford. *Wilts*: Miscellaneous work, Clark Bros., Swindon. *London, N.20*: Building work, Globe Contractors, Ltd., Watford. *London, S.W.7*: Building work, B. R. Palmer & Co., Merton, S.W.19.

Louth.—22 houses at Eastfield estate, for T.C. J. C. Barber, B.S., Town Hall: *E. Thompson & Co., Ltd., Louth, Lincs.

Newcastle, Staffs.—10 houses at Machin-cres., for T.C. C. B. Parkes (L.), Estate Office, Bournville Village Trust, King's Norton, Birmingham 30: *Madew & Wardle, Ltd., Central Works, Newcastle, Staffs, £11,748.

Northampton.—Eight "Airey" houses at Roade, for R.D.C. J. R. Miller, S., Rural Council Offices, 1, Spencer-parade: *Chowns, Ltd., 63, Edinburgh-rd., Northampton, £10,342.

Northfleet.—20 houses at New House Farm estate, for U.D.C. G. E. Clay & Partners, Gravesend. N. Gill, N.U.D.C., E. & S. Quantities by G. E. Clay & Partners: ‡E. & M. Heath, Ltd., Dartford, £30,100.

Northumberland. — Erection of six staff cottages at Thomas Taylor Homes at Stanniington, for C.C. W. W. Tasker, County A., County Hall, Newcastle-on-Tyne: J. Dodds & Son, Morpeth, £9,482.

Oldbury.—12 houses at Birchfield-la. estate, Whiteheath, for T.C. C. B. Eck, A.M.I.C.E., B.E.: *Whittall Bros., Stuart-rd., Rowley Regis.

Otley.—18 houses at Weston-la. estate, for U.D.C. J. A. A. Pratt, M.I.Mun.E., S., Council Offices, North-parade: *Harrison (Builders), Ltd., Pudsey, nr. Leeds, £25,180.

Preston.—16 houses and 9-in. sewer, site at Samlesbury, for R.D.C. C. Taylor, S., Council Offices, Guildhall-st.: *Hardman Bros., Kirkham, nr. Preston.

Reading.—Works, for T.C.: 16 Easiform at Whitley estate, *John Laing & Son, Ltd., £20,863; houses at Emmer Green estate, *J. T. Cook & Son, Ltd., £48,198 (38); *Mitchell Bros. (Reading), Ltd., £18,141 (14); *H. D. Dray & Son, £7,415 (6); *R. J. Haddock, Ltd., £10,272 (8); *R. J. Haddock, Ltd., £50,445 (36).

Sheffield.—190 houses at Woodthorpe estate extension and Parson Cross estate extension, for T.C. W. George Davies (F.), City A., Town Hall: *J. W. Sivil, Ltd., 39, Canterbury-av., £66,655 (50); *E. Oxley (Contractors), Ltd., £57,736 (44); *Bailey & Martyn, Ltd., £35,289 (28); *R. Simpson, £33,146 (26); *Redmile & Poole, Ltd., £23,198 (18); *R. Dernie & Sons, £15,064 (12); *F. Ridal & Sons (Builders), Ltd., 8, Cobden View-rd., £12,191 (12); *Bailey & Martyn, Ltd., £2,204 (2). (All of Sheffield.)

Somerset.—1 pair of police houses at Bridgwater for C.C. R. O. Harris (F.), County A., Park-st., Taunton: *C. C. Bird & Son, Ltd., Bridgwater, £3,499.

South Shields.—50 Newland houses, for T.C.: *Myton, Ltd., Hull.

Soenborough.—Airey houses at Scholes, for U.D.C.: 5 pairs, *S. Bradley, Bingley, £13,305; 4 pairs, *Robert Railton, Ltd., Bradford, £10,644.

Stafford.—16 houses at Gnosall and Seighford, for R.D.C. C. M. Coombs (F.), County-bldgs.: *Tideswell Bros., 6, Hollins-st., Shelton, Stoke-on-Trent, £7,924 (6); *C. Hall (Heath Hayes), Ltd., Heath Hayes, Stafford, £13,941 (10).

Stanwell (Middx.).—Alterations at Stanhope Farm, R. Hardy, M.B.E., B.Arch. (A.), architect, Kew-rd., Kew. Noall, Colbeck & Partners.

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97, Old Brompton-rd., S.W.7, quantity surveyors: *Tourell Construction Co., Ltd., Isleworth.

Stanwell (Middx.).—Conversion of stables at Stanwell-pl. R. Hardy, M.B.E., B.Arch (A.), architect, Kew-rd., Kew. Noall, Colbeck & Partners, 97, Old Brompton-rd., S.W.7, quantity surveyors: *Limpus & Son Ltd., Kingston-on-Thames.

Startforth (Yorks).—Three pairs of houses, for R.D.C. Architect: H. B. Richardson, Skinnergate, Darlington: *Boddy & Bell, Darlington, £9,603 (Council to negotiate with firm for erection of another eight houses).

Stockport.—10 houses at Didsbury-rd., Heaton Mersey, for T.C. W. F. Gardner, M.Inst.C.E., B.S.: *Hampson & Kemp, Ltd., Crescent-rd., Chorlton-cum-Hardy, Manchester 21, £14,000.

Sunningdale (Bucks).—Conversions into homes for 30 aged persons of Lynwood. D. J. Read (L.), 580, Christchurch-rd., Boscombe, Bournemouth: *A. Cameron, Ltd., 233, Queenstown-rd., Battersea, S.W.8.

Sutton Coldfield.—Two shops and houses (combined) and 10 residential flats in two blocks at Tower-rd. estate, for T.C. T. Porter, B.S., The Council House: *Davis & Son (Builders), Ltd., Chester-rd., Erdington, Birmingham.

Trowbridge.—9 pairs of Airey houses, for U.D.C.: *C. Syms & Sons, Ltd., Calne, £38,994.

Uxbridge.—74 dwellings at Nine Elms Estate, Cowley Peachey, for U.D.C. Harold E. G. Stripp, A.M.I.C.E., Council Offices, 263, High-st.:—

Carsons Bros & Jennings, Ltd., Tottenham, N.15	£115,426
Francis Jackson Contractors, Ltd., Ickenham	100,410
R. P. Taylor, South Ruislip	98,648
T. F. Nash Construction, Ltd., Hayes	97,384
E. E. Reed & Co., Farnham Common, Bucks	97,175
First Subsidiary General Housing Co., Ltd., Ealing, W.5	96,294
Tersons, Ltd., E.C.1	95,172
R. T. Warren (Builders, Hayes), Ltd., Uxbridge	94,796
G. T. Hawthorne & Son, Ltd., Hayes, Middx.	94,780
Cullen & Co., Builders, Ltd., Northwood, Middx.	93,314
Constructional Welding & Building Co., Hayes, Middx.	91,330
H. C. Haslam & Co., Ltd., Hillingdon	91,212
E. & J. Cotton, Ltd., Iver	88,706
The Building & Public Works Construction Co., Ltd., Swindon, Wilts...	88,276
‡E. J. G. Morgan, Ltd., Oxford-rd., Uxbridge	86,580

Wallsend.—Extensions to factory of Thermal Syndicate, Ltd. Architects: L. J. Couves & Partners, Carliol House, Newcastle: *W. T. Weir, Coachopen, Willington, Quay-on-Tyne.

Walsall.—41 houses at Severn-rd., Dee-rd., Mersey-rd. and Broad-la., for T.C. M. A. Habershon, O.B.E., M.Eng., B.E.: *F. J. Timmins, Sedgley-rd., Woodsetton, nr. Dudley, £48,928.

Weymouth and Melcombe Regis.—32 flats at Lanehouse Rocks-rd., Weymouth, for T.C. Crickmay & Sons, 23, St. Thomas-st., Weymouth. Quantities by C. Sweett, F.R.I.C.S.: *Richards (Developments), Ltd., Manor Farm, Upwey, Weymouth (subject to M.H. approval).

Watford.—Further 34 houses at Garston Park estate, for T.C.: *J. G. Gibbs & Son and *E. W. Puddifoot & Son.

West Bromwich.—36 houses at Hateley Heath estate, for T.C. H. Schofield, B.Sc., A.M.Inst.C.E., B.S.: *C. G. Cummings (Builders), Ltd., Birmingham, £16,064 (14); *Direct Works Dept., £25,520 (22).

Whitley Bay.—24 houses for U.D.C.: *Direct Labour.

Willesden.—Rebuilding house as flats, 40, The Avenue, for Church Commissioners. Cluttons, architects, 5, Great College-st., S.W.1: *J. D. Connolly, 14, Charlotte-mews, W.1.

Willesden.—Rebuilding houses as flats, 122-124, Walm-la., for Church Commissioners. Cluttons, architects, 5, Great College-st., S.W.1: *Ellis T. Amos, 25, Lime-st., E.C.3.

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